

3315 BLOOMFIELD HIGHWAY • FARMINGTON, NEW MEXICO 87401 • PHONE: (505) 326-5525

20 May, 1991

Mr Akhtar Zaman - Director Minerals Department The Navajo Nation P.O. Box 146 Window Rock, Arizona 86515

Ref:

Application for Permit to Drill
Northwest Cajon 6-E Well. San Juan County. Utah

Dear Sir

Attached for your information are two copies of an Application for Permit to Drill the Northwest Cajon Well No. 6-E in San Juan County, Utah.

Please advise if you require additional information concerning this application.

Sincerely,

Larry G. Sessions Operations Manager

LGS/cswh

File: C:\WP51\NWCAJON.6E\APDCOVER

encl.



3315 BLOOMFIELD HIGHWAY • FARMINGTON, NEW MEXICO 87401 • PHONE: (505) 326-5525

20 May, 1991

State of Utah Department of Natural Resources Division of Oil, Gas and Mining 355 West North Temple 3 Triad Building, Suite 350 Salt Lake City, Utah 84180-1203



DIVISION OF OIL GAS & MINING

Ref:

Application for Permit to Drill
Northwest Cajon 6-E Well, San Juan County, Utah

Gentlemen

Attached for your examination and approval is the original and two copies of an Application for Permit to Drill the Northwest Cajon Well No. 6-E in San Juan County, Utah. This well will be drilled as part of an ongoing exploration and development program.

The location for this well falls outside the guidelines for the State of Utah spacing requirements. However, due to the presence of numerous archaeological sites vertically above the bottomhole location, the well has to be drilled directionally. These archaeological sites preclude the surface well pad being located in accordance with State requirements. The bottomhole location also falls outside the State guidelines, but has been positioned so as to allow the well bore to penetrate geological structures which have been identified by seismic interpretation. We therefore apply for an exception to the General State Spacing requirements on these grounds. Chuska Energy controls the acreage surrounding the proposed surface and bottomhole locations, as indicated on the attached land plat.

Please advise if you require additional information concerning this application. Chuska Energy will greatly appreciate your prompt consideration.

Sincerely,

Larry G. Sessions
Operations Manager

LGS/cswh

File: C:\WP51\NWCAJON.6E\APDCOVER

encl.

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Chuska Energy	Company				9. BELL NO.	
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SUBMIT IN INTELLIGATE* FORM approved.

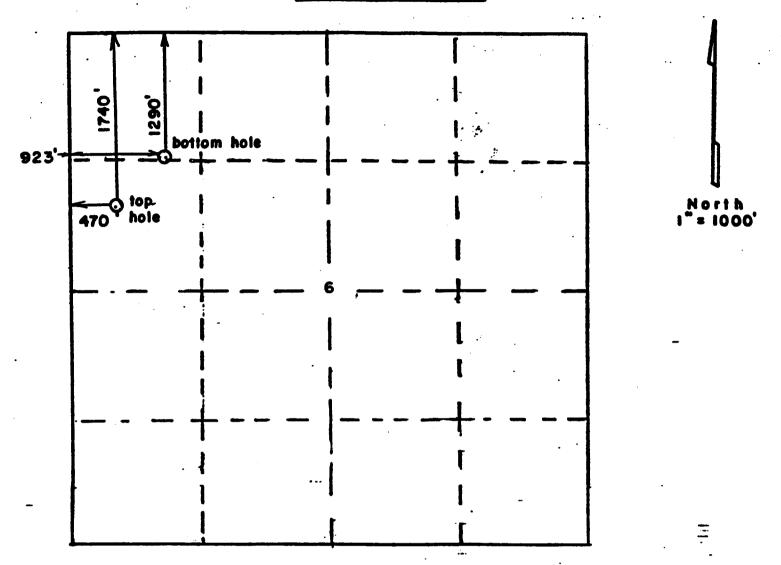
(Other instructions on

Budget Bureau No. 1004-0136

form 3160-3

(November 1983)

WELL LOCATION PLAT



WELL LOCATION DESCRIPTION:

CHUSKA ENERGY CO., Northwest Cajon 6-E 1740'FNL & 470'FWL (top hole) 1290'FNL & 923'FWL (bottom hole) Section 6, T.40 S., R.25 B., SLM San Juan County, UT

5063' ground elevation

State plane coordinates from seismic control:

X = 2,662,774 Y = 253,511 (top hole)

Y = 253,982 (bottom hole) x = 2,663,209

The above is true and correct to my knowledge and belief.

Gerald G. Huddleston, LS

MUDDLESTO

2 April 1991

10 POINT DRILLING PLAN

Northwest Cajon Well No. 6-E Section 6, Township 40S, Range 25E 1740' FNL, 470' FWL (Surface) 1290' FNL, 923' FWL (Bottomhole) San Juan County, Utah

1. SURFACE FORMATION

Geological name of surface formation: Dakota/Burro Canyon

2. ELEVATION

Surface elevation is 5,063' GR/5,076' KB.

3. ESTIMATED FORMATION TOPS

<u>Depth</u>	<u>Depth</u>		<u>Sub Sea</u>
TVD	MD	<u>Formation</u>	<u>Elevation</u>
Surface	Surface	Burro Canyon	+ 5,076'
176'	176'	Morrison	+ 4,900'
1,260'	1,260'	Navajo	+ 3,816'
1.948'	1,948'	Chinle	+ 3,128'
3,050'	3,050'	DeChelly	+ 2,026'
3,152'	3,152'	Organ Rock	+ 1,924'
3.849'	3,849'	Cedar Mesa	+ 1,227'
4,945'	4,963'	Hermosa	+ 131'
5,880'	5,984'	Upper Ismay	- 804'
5,988'	6,102'	Lower Ismay	- 912' Secondary
6,046'	6,166'	Desert Creek	- 970' Primary
6,086'	6,210'	Akah	- 1,010'
6,151'	6,281'	Total Depth	- 1,075'

4. PROPOSED CASING/CEMENTING PROGRAM

	<u>Depth</u>	<u>Size</u>	Weight	<u>Grade</u>	Coupling
Surface	_	8 5/8"	24 lb	K-55	STC
Production:		5 1/2"	15.5 lb	K-55	STC

Surface Cementing:

371 sx (427 ft^3) Class 'G' cement with 2% CaCl₂ and 1/4 lb/sk Celloflake. Weight = 15.8 ppg, yield = 1.15 ft³/sk. Slurry volume calculated at 100% excess over annular volume.

Production Cementing:

First Stage

T.D. to 3,500' (stage collar $0 \pm 3,500$ '). Lead with 242 sx Class 'G' cement, 65:35 Pozmix, with 6% gel and 1/4 lb/sk Celloflake. Weight = 12.7 ppg, yield = 1.85 ft³/sk. Tail with 159 sx Class 'G' cement with 2% CaCl₂. Weight = 15.8 ppg, yield = 1.15 ft³/sk. Total of 629 ft³. Bring Class 'G' slurry to 500' above top of Upper Ismay. Cement volumes calculated at 30% excess in open hole. WOC 4 hours between stages.

Second Stage

3,500' to surface. <u>Lead</u> with 355 sx Class 'G' cement, 65:35 Pozmix with 6% gel and 1/4 lb/sk Celloflake. Weight = 12.7 ppg, yield = 1.85 ft/sk. <u>Tail</u> with 100 sx Class 'G' cement with 2% CaCl₂. Weight = 15.8 ppg, yield = 1.15 ft³/sk. Total of 772 ft³. Cement volumes calculated at 30% excess in open hole.

Note:

Exact slurry volumes for the production string will be adjusted according to the caliper log which will be run prior to cementing. Special adjustments may be necessary if significant amounts of salt are drilled.

5. <u>BLOWOUT PREVENTER</u> (See attached schematics)

As abnormal pressure is not anticipated, a 2,000 psi BOP system would be sufficient for the drilling of this well. However, due to availability constraints, a 3,000 psi system will be used, as per the attached Exhibits "A" and "B". This will be a 10" x 900 Series double ram preventer, equipped with a set of pipe and blind rams.

An accumulator system, with a pressure capacity sufficient to operate the rams three complete cycles without rig power, will be required as part of the rig equipment.

6. PROPOSED MUD PROGRAM

Surface to 3,000'

Fresh water, gel, lime and native solids. Weight 8.3 - 8.7 ppg. Gel/lime sweeps as necessary for hole cleaning.

3,000' to T.D.

Low solids, non-dispersed polymer system. Weight 8.6 - 9.5 ppg. Gel/lime sweeps as hole conditions dictate for hole cleaning. Fluid loss to be maintained at 15 - 20 cc. Fluid loss to be further reduced to 15 cc or less prior to coring, logging or DSTs.

7. AUXILIARY EQUIPMENT

- A. A kelly cock will be installed during drilling operations, with handle available on the rig floor.
- B. Floor (stabbing) valves will be available, on the rig floor at all times, with necessary subs to fit all of the drilling assemblies.
- C. Mud will be the circulating fluid. No abnormal formation pressures are expected.

8. WELL EVALUATION

Open hole electric logging program will consist of a minimum program of DLL-MSFL-SP-GR-Cal, FDC-CNL-GR-Lithodensity from T.D. to 4,500'.

Coring and/or drill stem testing will be as per the wellsite geologist's recommendations, based on shows. A mud logging unit will be utilized during drilling operations from at least 500' above the Upper Ismay.

9. ABNORMAL PRESSURES/GAS

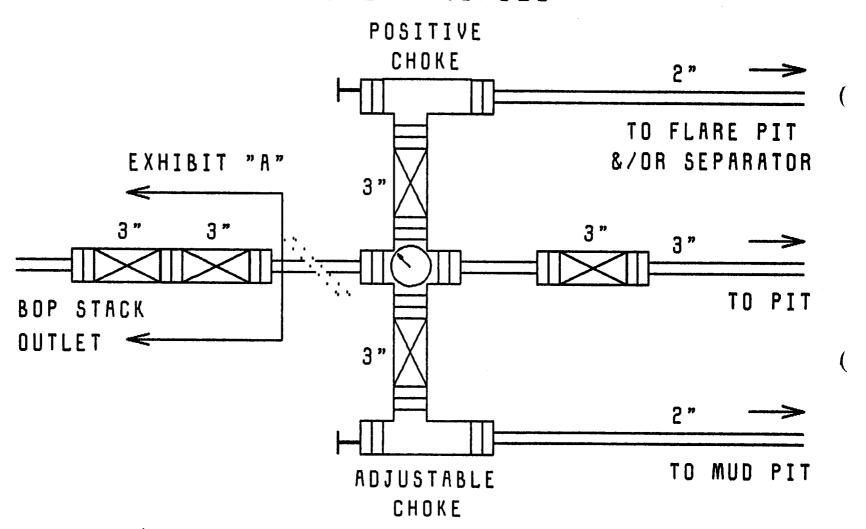
Abnormal pressures are not anticipated. Monitoring of gas and hydrocarbon shows will be by wellsite mud logging unit. H₂S gas is not anticipated, however regular checks will be made while drilling the well.

10. TIMING

The drilling and evaluation of this well is estimated to be 25 days. Anticipated spud date is 8-12-91.

~ EXHIBIT "A~ BLOWOUT PREVENTER ROTATING HEAD -FILLUP LINE MUD TO PIT PIPE RAMS RAMS BLIND EXHIBIT DRILLING SPOOL KILL TO CHECK LINE CHOKE VALVE MANIFOL CASING HEAD

EXHIBIT "B" CHOKE MANIFOLD



DETAILED DRILLING PROGRAM

DATE: 20 May, 1991

WELL NAME: Northwest Cajon WELL NO.: 6-E

LOCATION: Section 6, Township 40S, Range 25E

1740' FNL, 470' FWL (Surface) 1290' FNL, 923' FWL (Bottomhole)

San Juan County, Utah

ELEVATION: 5,063' GR/5,076' KB

TOTAL DEPTH: 6,281' MD/6,151' TVD KB

PROJECTED HORIZON: Primary target is Desert Creek at 6,166' MD.

Secondary target is Lower Ismay at 6,102' MD.

DRILLING, CASING AND CEMENTING PROGRAM

1. Move in and rig up rotary tools. Notify BLM of time of spud and intent to run surface casing.

- 2. Drill mouse hole and rat hole. Mix mud prior to spudding well.
- 3. Drill 12 1/4" hole to ± 500'. Use fresh water gel/lime spud mud for drilling surface hole. Well bore inclination is not to exceed 1° at 500'. Deviation surveys will be run at least at 250' and at casing point.
- 4. Run 8 5/8", 24 lb/ft, K-55, STC casing to T.D. Cement with 371 sx (427 ft³) of Class 'G' cement with 2% CaCl₂ and 1/4 lb/sk Celloflake (sufficient slurry volume to circulate cement to surface).
- 5. W.O.C. a minimum of 4 hours prior to nippling up BOP stack and related equipment. See BOP schematics for details.
- 6. Ensure that plug has been down at least 8 hours prior to commencing pressure testing procedures. Pressure test BOP to 2,000 psig for 30 minutes. Pressure test manifold and all related equipment to 2,000 psig. Pressure test casing to 1,500 psig for 30 min.
- 7. Drill out surface casing with 7 7/8" bit. Drill 7 7/8" hole to 4,000'. Deviation surveys are to be taken every 500' or on a bit trip, whichever occurs first. Maximum allowable deviation will be 5°, with the maximum allowable rate of change to be 1°/100'. Take directional survey at 4,000'.
- 8. Rig up directional tools and start building angle, with rate of build 2° per 100 ft. Directional surveys are to be taken every 100', or as directed, while building angle.

- 9. Build angle to 24.25° by 5,212' MD/5,177' TVD. Continue drilling 7 7/8" hole to T.D. Directional surveys are to be taken at least every 250'.
- 10. Run multishot survey at total depth.
- 11. Run open hole logs and evaluate. Coring and/or drill stem testing will be as per wellsite geologist's recommendation.
- 12. If the well is determined to be productive, run 5 1/2", 15.5 lb/ft, K-55, STC casing to T.D. Set stage cementing collar at ± 3,500'. In addition to placing centralizers over potential production zones, they will also be run to cover the aquifer sands of the Navajo and DeChelly formations, as per BLM stipulations. Cement production casing in two stages as per cementing program in 10-point Drilling Plan.
- 13. Nipple down BOPE. Set 5 1/2" casing slips and cut off casing. Install well head. Release drilling rig and move rig off location.
- 14. If well is non-productive it will be plugged and abandoned as per State, BLM and Navajo Tribal stipulations.

Northwest Cajon Well No. 6-E Section 6, Township 40S, Range 25E 1740' FNL, 470' FWL (Surface) 1290' FNL, 923' FWL (Bottomhole) San Juan County, Utah

GENERAL COMPLETION PROCEDURE

If the well is determined to be productive, move in completion rig. Perforate, acidize, and test each productive porosity zone. Completion work will commence after Sundry Notice approval is received. Detailed procedures will follow.

PLUGGING AND ABANDONMENT

If the well is determined not to be productive, the well bore will be plugged as per BLM, State and Navajo Tribal requirements.

Northwest Cajon Well No. 6-E Section 6, Township 40S, Range 25E 1740' FNL, 470' FWL (Surface) 1290' FNL, 923' FWL (Bottomhole) San Juan County, Utah

SURFACE USE PLAN

1. EXISTING ROADS

Shown on the attached topographic map are the existing roads in the immediate area. Outlined is the route to be followed on the Hovenweep road. Existing roads will be maintained, as necessary, while operations are in progress.

2. PLANNED ACCESS ROAD

The access road will be as shown on the attached topographic map. The road will be flat bladed, constructed 14' in width and will be maintained as necessary to prevent excessive damage to the existing terrain. The road will be upgraded if commercial production is established. It is anticipated that less than 800' of new road will need to be constructed to the location pad.

3. LOCATION OF EXISTING WELLS & TANK BATTERIES

The location of the North West Cajon 11-1 well is indicated on the attached topographic map.

4. LOCATION OF EXISTING AND PROPOSED FACILITIES

No production facilities are presently in place. Should the well prove to be productive, facilities (tank battery etc) will be sited on the drilling location pad.

5. LOCATION & TYPE OF WATER SUPPLY

Water will be acquired from the San Juan River or McElmo Creek and will be hauled using Chuska Energy Company water trucks, under State of Utah Division of Water Rights Permit Numbers 09-1724, (T64796) or 09-1723 (T64795).

6. SOURCE OF CONSTRUCTION MATERIALS

The need for additional construction materials is not anticipated. In the event that additional materials are required, they will be acquired either from private sources or with the approval of the Navajo Nation.

7. METHODS OF HANDLING WASTE MATERIAL

Trash will be contained on location in an enclosed bin. It will be hauled to an approved disposal site or burned on location if a burning permit is granted. The reserve pit will be lined as required, with an approved 7 mil liner, for containing drilling fluids. The pit will also be fenced. All drilling fluids, cuttings and chemical waste will be stored in the reserve pit. Liquid hydrocarbons will be stored in temporary storage tanks and hauled from location to approved sales facilities. The reserve pit will be emptied, back filled and restored to natural terrain status upon completion of drilling operations.

8. ANCILLARY FACILITIES

Chemical portable toilet facilities will be provided on location during drilling and completion operations. No camps or air strips are planned for this well.

9. WELL SITE LAYOUT

11.

Attached is a surveyor's staking plat, cut and fill diagram and a schematic of the proposed rig layout.

10. PLANS FOR RESTORATION OF THE SURFACE

The location is laid out on a roughly north/south trend and will only require up to 6' of cut in the reserve pit (up to 4' of cut in the north eastern corner of the location pad) and up to 6' of fill in the south western corner of the location pad. Top soil removed from the pad will be stored at the well site. A reserve pit will be built on terrain containing sparse native vegetation. After drilling operations are complete, drilling fluid in the reserve pit will be allowed to evaporate. All remaining fluid in the pit will be disposed of into an approved disposal site. The reserve pit will remain fenced during the evaporation and disposal process. The pit will then be covered and the topsoil will be returned to the disturbed area. The terrain will be returned as near to its original condition as possible. Following operations, rehabilitation seeding will be in accordance with APD/BLM/BIA stipulations. There are no residents in the immediate area of the site.

OPERATORS REPRESENTATIVE

CHUSKA ENERGY COMPANY
3315 BLOOMFIELD HIGHWAY
FARMINGTON, NEW MEXICO 87401
LARRY G. SESSIONS

12. CERTIFICATION

I hereby certify that either I, or persons under my direct supervision have inspected the proposed drill site and access route: that I am familiar with the conditions which presently exist: that the statements made in this plan are, to the best of my knowledge, true and correct and that the work planned will be performed by Chuska Energy, or its sub-contractors, in conformity with the terms and conditions under which it is approved.

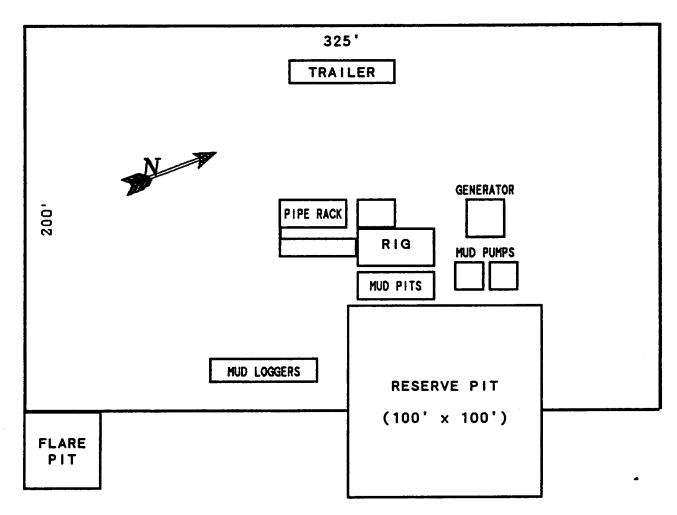
LARRY G. SESSIONS Operations Manager

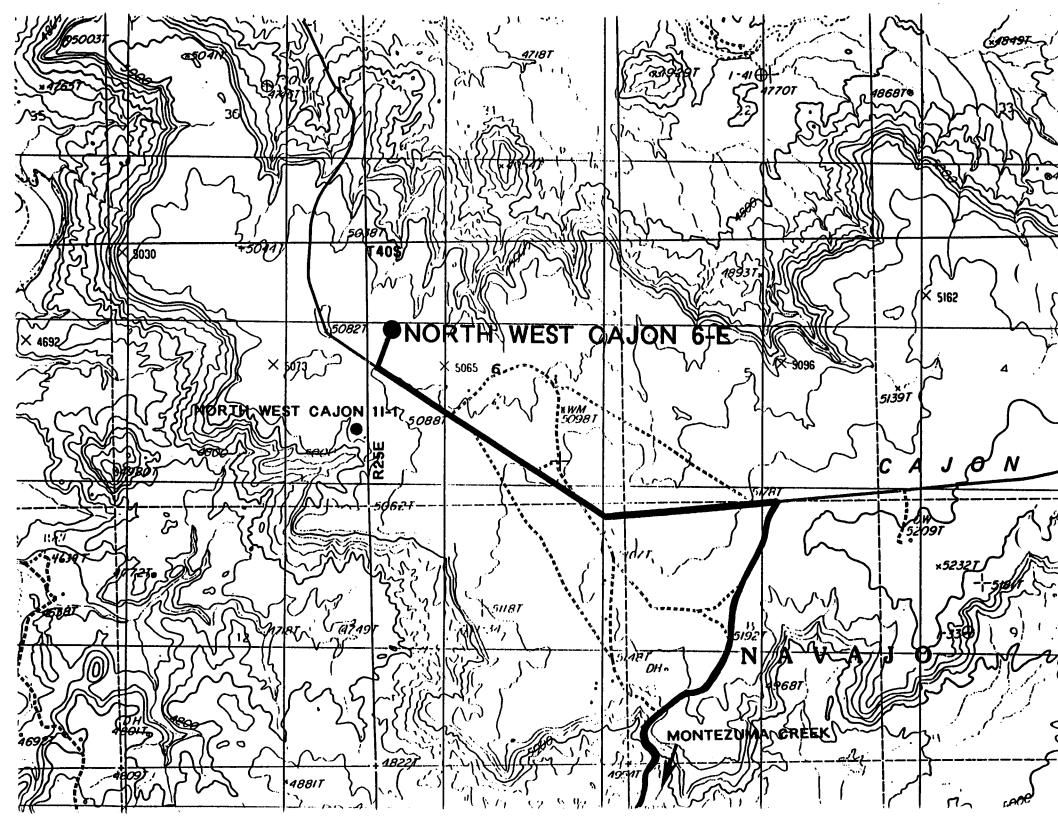
NORTH WEST CAJON-6-E

1740' FNL, 470' FWL

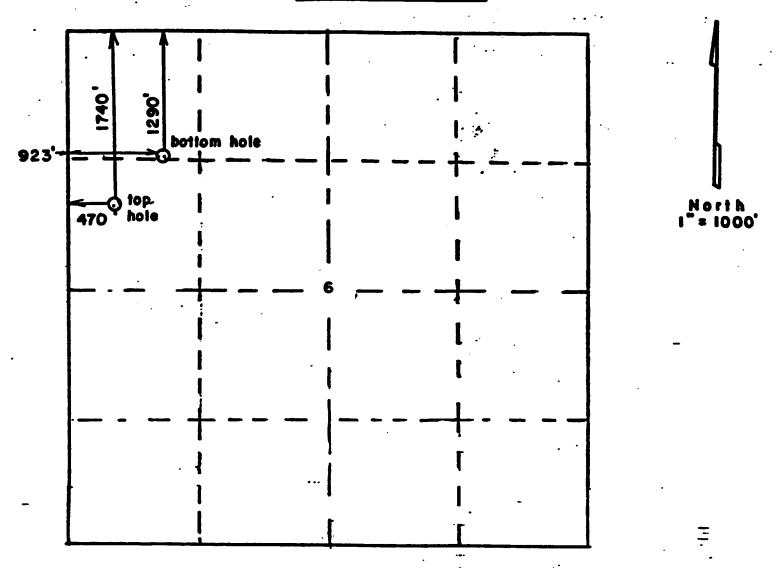
SECTION 6, TOWNSHIP 40S, RANGE 25E

SAN JUAN COUNTY, UTAH





WELL LOCATION PLAT



WELL LOCATION DESCRIPTION:

CHUSKA ENERGY CO., Northwest Cajon 6-E

1740'FNL & 470'FWL (top hole)

1290'FNL & 923'FWL (bottom hole)

Section 6, T.40 S., R.25 E., SLM

San Juan County, UT

5063' ground elevation

State plane coordinates from seismic control;

X = 2,662,774

Y = 253,511 (top hole)

Y = 253,982 (bottom hole) x = 2,663,209

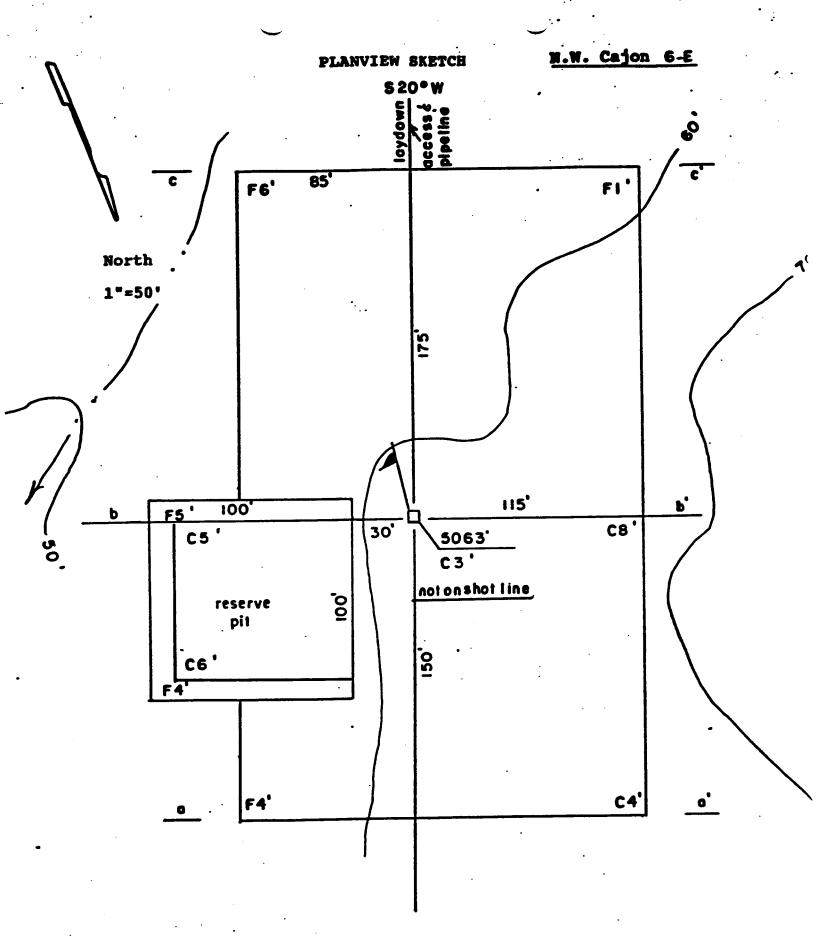
The above is true and correct to my knowledge and belief.

2 April 1991

Gerald G. Huddleston, LS

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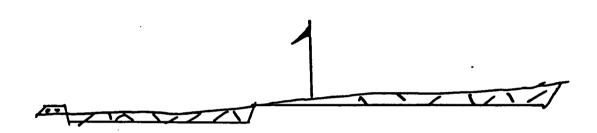
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ACREAGE POSITION UNDER THE 1987 OPERATING AGREEMENT

CHUSKA: T40S-R25E, SAN JUAN COUNTY, UTAH



3315 BLOOMFIELD HIGHWAY • FARMINGTON, NEW MEXICO 87401 • PHONE: (505) 326-5525

20 May, 1991

Bureau of Land Management 1235 La Plata Highway Farmington, New Mexico 87401

ATTENTION: Ron Fellows

Ref:

Application for Permit to Drill

Northwest Cajon 6-E Well, San Juan County, Utah

Dear Mr. Fellows,

Attached for your examination and approval is the original and six copies of an Application for Permit to Drill the Northwest Cajon Well No. 6-E in San Juan County, Utah. This well will be drilled as part of an ongoing exploration and development program.

Please advise if you require additional information concerning this application. Chuska Energy will greatly appreciate your prompt consideration.

Sincerely,

Larry G. Sessions Operations Manager

LGS/cswh

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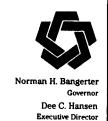
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JUN 0 3 1991

DIVISION OF OIL GAS & MINING

CONFIDENTIAL

OPERATOR Chuska Energy Co DATE 6 6-91
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SEC HWHW 6 T 409 R NOTE COUNTY Jan Tuan
43 037 31W7 API NUMBER TYPE OF LEASE
CHECK OFF:
PLAT. BOND NEAREST WELL
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Dianne R. Nielson, Ph.D.

Division Director

State of Utah DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

355 West North Temple 3 Triad Center, Suite 350 Salt Lake City, Utah 84180-1203 801-538-5340

June 10, 1991

Chuska Energy Company 3315 Bloomfield Highway Farmington, New Mexico 87401

Gentlemen:

Re: Northwest Cajon 6-E Well, Surf. 1740 feet from the North line, 470 feet from the West line, SW NW, BHL. 1290 feet from the North line, 923 feet from the West line, NW NW, Section 6, Township 40 South, Range 25 East, San Juan County, Utah

Approval to drill the referenced well is hereby granted in accordance with Utah Admin. R.6I5-3-3.

In addition, the following actions are necessary to fully comply with this approval:

- 1. Spudding notification within 24 hours after drilling operations commence.
- 2. Submittal of Entity Action Form 6, within five working days following spudding and whenever a change in operations or interests necessitates an entity status change.
- 3. Submittal of the Report of Water Encountered During Drilling, Form 7.
- 4. Prompt notification in the event it is necessary to plug and abandon the well. Notify R. J. Firth, Associate Director, (Office) (80I) 538-5340, (Home) 571-6068, or J. L. Thompson, Lead Inspector, (Home) 298-9318.
- 5. Compliance with the requirements of Utah Admin. R.6l5-3-20, Gas Flaring or Venting.

Page 2 Chuska Energy Company Northwest Cajon 6-E June 10, 1991

- 6. Prior to commencement of the proposed drilling operations, plans for facilities for disposal of sanitary wastes at the drill site shall be submitted to the local health department. These drilling operations and any subsequent well operations must be conducted in accordance with applicable state and local health department regulations. A list of local health departments and copies of applicable regulations are available from the Division of Environmental Health, Bureau of Drinking Water/Sanitation, telephone (80I) 538-6159.
- 7. This approval shall expire one (1) year after date of issuance unless substantial and continuous operation is underway or an application for an extension is made prior to the approval expiration date.

The API number assigned to this well is 43-037-31627.

Sincerely,

Associate Director, Oil & Gas

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Enclosures

cc: Bureau of Land Management Bureau of Indian Affairs

J. L. Thompson

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DEPARTMENT OF THE INTERIOR

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	end Tolophono Ro.		43-037-31627 18. Field and feel, or Exploratory Area
	Bloomfield Highway, Farmi		
4. [8525188	of Well (Feetage, Sec., T., R., R., or Sur	vey pescriptica;	Wildcat
1740'	FNL, 470' FWL, S6, T40S,	R25E	1
			San Juan, Utah
2.	CHECK APPROPRIATE BOX(s)	TO INDICATE NATURE OF NOTICE, REF	PORT, OR OTHER DATA
	TYPE OF SUBMISSION	TYPE OF ACTIO	ON
	X Rotice of Intent	Abendonment	X Change of Plans
		T Recompletion	Asy Construction
	Subsequent toport	Thagging dack	Ann-Routine Fracturing
		Casing Ropair	Tater Shut-off
	Fing: Absolonment Motice	Altering Casing	Conversion to Injection
			Dispose Water
			(Note: Report results of multiple completion on Meil
			Completion or Recompletion Report and Log form.;
3. Describe Pr	roposed or Completed Operations (Clearly state all p	ertinent details, and give pertinent dates, including estimated date	of starting any proposed work, if well is directionally
-		a a a	

artiled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Following re-evaluation of seismic data, it has been decided to deepen the well to 6,418 MD/6,276' TVD. Refer to attached revised 10-Point Drilling Plan.

14. hereby process that the forgoing of true and co	rrect	0ate 5 Jul 91
(This space for federal or state office use) Approved by Conditions of approval, if any	Title	Date

Title 18 W.S.C. Section 1881, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its invisdiction.

September 30, 1991

TO:

File

FROM:

Frank Matthews

RE:

NW Cajon 6E, Sec. 6, T. 40S, R. 25E, San Juan County,

API No. 43-037-31627

Well was plugged and abandoned on 9/18/91 per Glenn Goodwin.

Handle as



3315 BLOOMFIELD HIGHWAY • FARMINGTON, NEW MEXICO 87401 • PHONE: (505) 326-5525

September 7, 1993

State of Utah Department of Natural Resources Division of Oil, Gas and Mining 355 West North Temple 3 Triad Center, Suite 350 Salt Lake City, Utah 84180-1203 SEP 1 0 1993

DIVISION OF OIL, GAS & MINING

Attn: Mr. R.J. Firth
Associate Director

RE: Utah Division of Oil, Gas and Mining's Reporting Requirements

Dear Mr. Firth:

Enclosed please find the following reports and well logs run on wells drilled by Chuska Energy Company during the period January 1, 1992 forward. The Production Reports were filed in June under a separate cover letter by our home office, Harken Energy Company, out of Dallas. We have received conflicting statements as to whether or not the data was received. Therefore, a second set of Production reports from January 1992 forward are also forwarded to your office under this cover letter.

APD(S), SUNDRY NOTICES AND ENTITY ACTION FORMS

Barnes 18M Barnes 18M(N) Brown Hogan 1A-2 Burro 33I Clay Hill 33-0 Crane 35H Copperhead 15E D.C. Anticline 35K Heron 35H Heron 35H(A) Jack 31G Kokopelli 29I Lark 19B Lark 19B(G) Lighting Rock 2E Lizard 4M Lone Mountain Creek 12F-1 Monument 17E-2
Mule 31K
Mule 31K(N)
Mule 31M
NW Cajon 1I-1
North Heron 35C
Northwest Cajon 6E
North Cajon Mesa 5E-1
North Ruins 16K
Red Lake 25B
Tower 1F
Box Canyon 5F
Shalene 11K
South Triangle 7I
West Clay Hill 5B(A)



DIVISION OF OIL, GAS & MINING

LOGS

Barnes 18M(N) Brown Hogan 1A-2 Burro 33I Clay Hill 33-0 Copperhead 15E D.C. Anticline 35K Heron 35H Jack 31G Kokopelli 29I Lark 19B(G) Lighting Rock 2E Lone Mountain Creek 12F-1 Mule 31K(N) Mule 31M North Cajon Mesa 5E-1 North Heron 35C N.W. Cajon 11-1 N.W. Cajon 6E Red Lake 25B West Clay Hill 5B(A)

If you should have any further questions, please don't hesitate to contact me, or Nell Lindenmeyer, at 505-326-5525.

Sincerely

Barry A. Wieland Operations Manager

Enclosures cc: Well File

		DIVIS	ION OF OII	OF UTAH	AND	MINING		→	لع	. LEASE OE:	IGHATION AND	- 444LAL
									N	OG 8702	- 1116	
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SIG (ED	RRY A.	ne	Kce o		<u> </u>	OPERATI	ONS I	MANAGER		DATE	5-27-93	
BA	nni A.	WTET,A										
			See Soaces	or Addit	i tanai	Uata on	X avac	5:4-			,	

INSTRUCTIONS

The form should be completed in compliance with the Utah Oil and Gas Conservation General Rules. If not filed prior to this time, all logs, tests, and directional surveys as required by Utah Rules should be attached and submitted with this report.

ITEM 18: Indicate which elevation is used as reference for depth measurements given in other spaces on this form and on any attachments.

iTEMS 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval. ITEM 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

ITEM 33: Submit a separate completion report on this form for each interval to be separately produced (see instructions for items 22 and 24 above).

37. SUMMARY OF POROUS ZONES

Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut in pressures, and recoveries.

			I .	
_	Formation	Тор	Bottom	Description, contents, etc.
	Core #1	6201 '	6261'	Desert Creek, 100% Recovery
				•

3.	GEOLOGIC	MARKERS

Name	Тор		
	Meas. Depth	True Yert. Depth	
Hermosa U Ismay Hovenweep Sh L Ismay Gothic Sh Desert Creek Chimney Rock Akah	4970' 5967' 6087' 6090' 6114' 6136' 6270' 6294'	4943' 5897' 6008' 6010' 6033' 6053' 6176' 6198'	

Form 3169-4 (October 1990)

UNITED STATES

SUBMIT IN DUPLICATE.

FOR APPROVED OMB NO. 1004-0137 Expires: December 31, 1991

(Secother in-

signed £	en t	Che	nstructions a	_ Tr	rle	[roda	14 TO	Eng	ine	ARMING	TE:	0/12/91
36. I hereby certif.		foregoing s	and attached is		PERA		orrect as	determine	d from		,	
35. LIST OF ATTACE			. ,				- · · · · · · · · · · · · · · · · · · ·			ACCEPT		OR RECORD
34. DISPOSITION OF	GAS (Sold.	used for fu	>		-				<u>_</u>	TEST WITH	SEED B	Ŧ .
PLOW. TUBING PROMS.	CASING	PRESSURE	CALCULATED 24-HOUR RAT	011		GA:			WATER-	-NBL.	OIL G	RAVITY-API (CORR.)
P&A	HOURS	TESTED	CHOES SIZE		. FOR PERIOD	OIL-BB	<u>L.</u>	GAS-MC		WATER—BE	i.	GAS-OIL RATIO
DATE PIRET PRODUC	TION	PRODUCT	ION METHOD (Flowing, g			ise and t	ype of pum	p)		STATU	(Producing or
33.*		-n	·		PROI	Ol.CLION						
		SEP	1 0 1993									
			L 0.1000									
			,			i ——	INTERVAL					KATBRIAL CORD
31. PERFORATION B	CORD (Jata	rval, size	and number			32.		יים פערייים	ED A COM	ure, cemen	T COTT	**** TTC
	TOP (M		OTTOM (MD)	SACKS C	- IVABAT	SCREEN	(=0)	3125		refin BET ()		FACEDR SEL (AD)
29.			NER RECORD	7		SCREEN	(80)	30.		TUBING REC		PACKER SET (MD)
								serve	oit			
										t slurry		
85/8 K-55	24_		5 9 6		12	1/4				2% CaCl2 . Circul		
CASING SIZE/GRAD	E WEIGH	RT, LB./FT.			но	I.E SIZE	T.	IOP OF CEN		ENTING RECOR		AMOUNT PULLED
DLL/MSFL/	GR/CAL		CNL/LD	BH	C/Son		nge set is	n well)			<u> </u>	es
26. TYPE ELECTRIC					- 1 -						1	AS WELL CORED
NONE												
24. PRODUCING INT	ERVAL(8), C	F THIS CO	MILETION—TO	P. BOTTOM.	NAME (N	ED AND TY	D) *					. WAS DIRECTIONAL SURVEY MADE 28
6336 MD		Surfa	ice		K WOH	ANT*		DRIL	D BY	Yes		
8-29-91 20. TOTAL/DEFTH. M	9-17	7-91 21. PLUG. 1	9- BACK T.D., MD &	20-91	. IF MUL	TIPLE COM		Gr/507	RVALS	ROTARY TO		GABLE TOOLS
15. DATE SPUDDED	16. DAT	E T.D. REAG	HED 17. DAT	R COMPL.	(Ready to	prod.)	18. ELEV	ATIONS (DI		T, GE, ETC.)*		LEV. CASINGHEAD
				43-03		27	8-8	R-91		San Jua	n	Utah
At total depth	Same		•		BMIT NO.	· · · · · · · · · · · · · · · · · · ·	DATE	ISSUED		12. COUNTY		13. STATE
At top prod. 1	=		23' FWL (subsur	face)					S6,T40	S.R25	SE.
		•	FWL (su	rface)						OR AREA		DE BLOCK AND SURVEY
3315 Blood					with an	y State re	uiremen	(e) •		Wilde	at	
			rmington	,NM 87	401 1	505-3	326-55	25		43-03	7-316	. OR WILDCAT
Chuska En	ergy									9. API WELI		
2. NAME OF OPER	OVER L	RN	∟ B.sčκ Ł	EEX	va. 🗀	OtherF	<u>an</u>					•
N TYPE OF CO	WORK [DEEL-	BACK [DIF	۰. _[]	5.t E	A.2.0			8 PADW C	PIFA	SE NAME, WELL N
14. TYPE OF WI		OIL WELL			<u> </u>	Other				7. UNIT ACE	TTI BEMENT	NAME
WELL CO	OMPLE1	TION (OR RECO	MPLET	ION F	REPORT	AN	D LOG	j*			TES OR TRIBS NAM!
-		BURE	AU OF LAN	ND MAN	AGEME	NT				NOG 870	12-11	16
	DE		MENI O)K	LGAGL#	r side)	S. I.KASE DI	es ių nati	ON AND SERIAL NO

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity drill-stem, tests, including depth interval tested, cushion used, time recoveries):	ROUS ZONES: (§	show all important a sterval tested, cust	cones of porosity and contents thereof; cored intervals; and all hion used, time tool open, flowing and shut-in pressures, and	38. GEOL	GEOLOGIC MARKERS	Å,
FORMATION	TOP	воттом	DESCRIPTION, CONTENTS, ETC.		TOP	a
Core #1	6201	6261	Desert Creek, 100% Recovery	E WYZ	MEAS. DEPTH	TRUE VERT. DEPTH
				Hermosa U Ismay Hovenweep Sh L Ismay Gothic Sh Desert Creek Chimney Rock Akah	4970' 5967' 6087' 6090' 6114' 6270' 6294'	4943 1 5897 1 6008 6008 6033 6053 1 6196
			SEP 1 0 1993			

FOFUTAH

DEDARTMENT ALATION DECOMPOS	。 、 、 、 、 、	
DEPARTMENT NATURAL RESOURCE	- I	6. Lease Designation and Serial Number
DIVISION OF OIL, GAS AND MINING	3	NOG 8702-1116
•		7. Indian Allottee or Tribe Name
		- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
SUNDRY NOTICES AND REPORTS OF	COCCUSTACION DE DOTE DANS DANS DE COCCUSTACION DE COCCUSTA	Navajo Tribal
Do not use this form for proposals to drift new welfs, despen extelling water, or to reen	ter plugged and abandoned wells:	8. Unit or Communitization Agreement
Lies APPLICATION FOR PERSIS — its each propose		NY / A
		N/A
. Type of Well Qil		9. Well Name and Number
Well Well LA I d. A		North West Cajon 6E 1
. Name of Operator		10. API Well Number
huska Energy Company		43-037-31627
. Address of Operator	4. Telephone Number	11. Field and Pool, or Wildcat
315 Bloomfield Highway Farmington N.M. 87401	505-326-5525	Wildcat
Location of Well 1740' FNL, 470' FWL (Surface)		
Footage : 1290' FNL, 923' FWL	County :	San Juan
QQ, Sec, T., R., M. : Sec. 6, TAOS, R25E	State :	UTAH
2 CHECK APPROPRIATE BOXES TO INDIGATE NA	TURE OF NOTICE, REPOR	IT OR OTHER DATA
NOTICE OF INTENT (Submit in Duplicate)		UENT REPORT riginal Form Only)
Abandonment	Abandonment *	☐ New Construction
Casing Repair Pull or Alter Casing	Casing Repair	Pull or Alter Casing
	Change of Plans	☐ Shoot or Acidize
Change of Plans Recompletion Conversion to Injection Shoot or Acidize	Conversion to Injection	☐ Vent or Flare
Fracture Treat Vent or Flare	Fracture Treat	☐ Water Shut-Off
Fracture Treat Vent or Flare Multiple Completion Water Shut-Off	Other Final Aband	□
Other	Elnal Aband	onment
	Date of Work Completion	
Approximate Date Work Will Start		
	Report results of Multiple Completion	ons and Recompletions to different reservoirs
	on WELL COMPLETION OR RECO	MPLETION AND LOG form.

Must be accompanied by a cement verification report.

FINAL ABANDONMENT NOTICE

REHAB COMPLETED ON 4-20-92.

SFP 1 0 1993

And the second s

14. I hereby certify that the foregoing is true and correct					
Name & Signature H. Unelco	BARRY A WIFLAND	Title	OPERATIONS MANAGER	Date	5-27-93
(State Use Only)					

^{13.} DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals

NAVAJO TRIBAI

SUBMI	T IN TRIPLICATE	7. If Unit or CA, Agreement Designation
1. Type of Well		N/A
Oll Gas C Other		8. Well Name and No.
2. Name of Operator		NORTH WEST CAJON 6E-1
CHUSKA ENERGY COMPANY		9. API Well No.
3. Address and Telephone No.		43-037-31627
3315 BLOOMFIELD HIGHWAY, FARMIN	GTON, NEW MEXICO 87401	10. Field and Pool, or Exploratory Area
4. Location of Well (Footage, Sec., T., R., M., or Survey		WILDCAT
SURFACE: 1740' FNL, 470' FWL		11. County or Parish, State
SUB-SURFACE: 1290' FNL, 923' FW S6-T40S-R25E		SAN JUAN, UTAH
12. CHECK APPROPRIATE BOX	(s) TO INDICATE NATURE OF NOTICE, RE	PORT, OR OTHER DATA
TYPE OF SUBMISSION	TYPE OF ACT	ON .
Notice of Intent	Abandonment	Change of Plans
	Recompletion	New Construction
Subsequent Report	Plugging Back	Non-Routine Fracturing

letion or Recompletion Report and Log form.) 13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Altering Casing

FINAL ABANDONMENT NOTICE.

Final Abandonment Notice

REHAB COMPLETED ON 4-20-92.

CEP 1 0 1995

4. I hereby certify that the	Title	OPERATIONS MANAGER	5-20-92
(This space for Peders			
Approved by Conditions of approve	i, if may:		

EOFUTAH

	RITMENT OF NATURAL RESOURCES		6. Lease Designation and Serial Number
			NOG 8702-1116 7. Indian Allottee or Tribe Name
De notues this form for proposals to drift	TICES AND REPORTS FOR SHAPE SHAPE OF S	s reentar plugged and abendoned	Navajo Tribal 8. Unit or Communitization Agreement N/A
1. Type of Well			
Qx Oil Gas Well	Other (specify)		9. Well Name and Number
2. Name of Operator			North West Cajon 6E 1
Chuska Energy Company			43-037-31627
3. Address of Operator		4. Telephone Number	11. Field and Pool, or Wildcat
3315 Bloomfield Hwy, Far	mington, N.M 87401	505-326-5525	Wildcat
5. Location of Well 1740 ° F Footage : 1290 ° F QQ, Sec, T., R., M. : Sec. 6	NL, 470' FWL (Surface NL, 923' FWL (Subsurf	ace)	County: San Juan State: UTAH
		NATURE OF NOTICE,	REPORT (*): CONTENIDATA
NOTICE O	OF INTENT Duplicate)	3	SUBSEQUENT REPORT (Submit Original Form Only)
Abandonment Casing Repair Change of Plans Conversion to Injection Fracture Treat Multiple Completion Other Approximate Date Work Will Start	New Construction Pull or Alter Casing Recompletion Shoot or Acidize Vent or Flare Water Shut-Off	Abandonment * Casing Repair Change of Plans Conversion to Inje Fracture Treat Other Date of Work Complet	New Construction Pull or Alter Casing Shoot or Acidize Vent or Flare Water Shut-Off
		on WELL COMPLETION	OR RECOMPLETION AND LOG form. by a cement verification report.
13. DESCRIBE PROPOSED OR COMPLE locations and measured and true vertice PLUG # FROM, MD	cal depths for all markers and zones ;	pertinent to this work.)	nt dates. If well is directionally drilled, give subsurface
1 6336'	5917 '	250 Aka	h, Chimney Rock, DC, Gothic Sh.
1 0000	3,2.		smay, Hovenweep, U Ismay
2 5020 °	4920 *		mosa
3 3095	2995 '	60 DeC	helly
4 2015 [†]	1915 '	60 Chi	nle
5 575 '	475 '	60 Cas	ing Shoe
6 50 '	0 1	25 Sur	face
All plugs were Class'G' All plugs were displace @ 11:06 A.M., 9-18-91.	d with mud. Verbal a		2% Calcium Chloride ed from Steve Mason (BLM)
14. I hereby certify that the foregoing is tru	e and correct		

SEP 1 0 1993

(State Use Only)

Title OPERATIONS MANAGER Date 5-27-93

Form 3160-5 (June 1990)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

	PORM APPROVED	
	Budget Burner Ma Birthe Bare	
, in	France Management	
5. La	and Davidson	
	Sales and the sales of the sale	
IOG	8702-1116	

e Danas	SUNDR	Y NOTICES A	ND REPORTS ON WELLS		NOG 8702-1116
	a mua ioliti lõt DL	ODOSAIS to drill	or to deepen or reentry to a different PERMIT—" for such proposals	nt reservoir.	6. If Indian, Allome or Table Name Navajo Tribal
	SUBMIT IN TRIPLICATE				7. If Unit or CA, Agreement Designation
1. Type of Well	· · · · · · · · · · · · · · · · · · ·		2.0772		
Oil Well	Ges Cother	De A	SEP 1 0 199	13	
2. Name of Oper	ator	PAA		~~	8. Well Name and No.
Chusks 3. Address and T	Energy Comp	any			NW.Cajon 6E 9. API Well No.
		_			43-037-31627
4. Location of W	SICOMFIELD Hiself (Footage, Sec., T., R.	hway Farm:	ington, NM 87401 1-505-326-	-5525	10. Field and Pool, or Exploratory Area
1740'	FNL, 470'FWL	(surface)	,		Wildcat
1290'	FNL, 923 FWL	(subsurface)			11. County or Parish, State
6-T-40	S-R25E				San Juan County, UT
12. CH	IECK APPROPE	NATE BOX(s)	TO INDICATE NATURE OF NOTIC	CE, REPOR	T. OR OTHER DATA
<u></u>	PE OF SUBMISSIO	N		OF ACTION	, see and see
ال	Notice of Intent		X Abandonment		
(J			Recompletion		Change of Plans
لكا	Subsequent Report	1	Plugging Back		New Construction
П	Pi1 Al		Casing Repair		Non-Routine Fracturing Water Shut-Off
	Final Abandonment Notice	æ	Altering Casing		Conversion to Injection
			Other		Dispose Water
3. Describe Propes	ed or Completed Operation	- (C) (-)			451
give subsuri	face locations and measur	ed and true vertical de	inent details, and give pertinent dates, including estimate oths for all markers and zones pertinent to this work.)*	d date of starting ar	ry proposed work. If well is directionally drill
Plug#	From (ml)	To (ml)	" —	ones Cove	
,		_ ,	۵.	ones cove	ced
1	6336 '	5917 '	250 AI	kah.Chimna	eyRock, DC, Gothic Sh,
2	50201		L	Ismay, Ho	ovenweep, U Ismay
3	5020'	4920'	60 He	ermosa	overweep, o ismay
4	3095	2995		eChelly	
5 .	2015'	1915'		inle	
5 .	575 '	475 '		sing Shoe	•
В	50 '	0'		rface	•
	gs were Class gs were displ AM on 9-18-9		ement. Plugs 5 and 6 conta ud. Verbal approval was re 9-18-91.	ined 2% Ceceived fr	alcium Chloride om Steve Mason (BLM)
I hereby corolly sha	at the foregoing is true an				
- servey certify in	e and lotelotte is take su	d correct			

Signed	Title _	Iroluction	Eggineer	Date
Approved by	Title			Desc
		***	145	

9-18-91 NW Cajon 6-e P&A Data Sheet

PHONE RECORDING: 326-6201 MARK KELLEY (BLM)

DATE: 9-18-91

TIME: 1730 HRS

COMPANY: CHUSKA ENERGY CO

TYPE JOB: P & A

TIME OF PLUGGING OR CEMENTING: 0100 9-19-91

WELL NAME: NW CAJON 6-E

WELL LOCATION: SECT 6-T40S-R25E SAN JUAN, UT

LEASE DESIGNATION NO: NOG 8702-1116

HOLE SIZE: 7 7/8"

CASING SIZE: OPEN HOLE

SURFACE CASING TD: 525' W/ 12 JTS 8 5/8",24#,K-55 ST&C

SEP 10 1993

CASING OR DRILLERS TD (PBTD): 6336'

CEMENT CONTRACTOR: DOWELL

DRILLING/COMPLETION CONTRACTOR: AZTEC RIG NO. 222

P&A PROGRAM

					<u>FORMATION</u>
PLUG #	FROM, MD	TO. MD	#SX	ZONE COVERED	TOP
1	6336	5917	250	AKAH	6294
				CHIMNEY RK	6270
				DC	6136
				GOTHIC SHALE	6114
				LOWER ISMAY	6090
				HOVENWEEP	6087
				UPPER ISMAY	5967
2	5020	4920	60	HERMOSA	4970
3	3095	2995	60	DeChelly	3045
. 4	2015	1915	60	CHINLE	1965
5	575	475	50	CASING SHOE	
6 -	50	÷ 0	25	SURFACE	
-			505.		

ALL PLUGS WILL BE CLASS G MEAT GENENT CONTAIN 2% CALCIUM CHLORIDE AL SE CONTAIN 2% CALCIUM CHLORIDE AL SE CONTAIN 2% CALCIUM CHLORIDE AL SE CONTAIN SE CON

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4	2015	1915	60	CHINLE	1965
5	575	475	50	CASING SHOE	
6 -	50	0	25_	SURFACE	
•			505		

ALL PLUGS WILL BE CLASS 'G' NEAT CEMENT. PLUGS 5 AND 6 WILL CONTAIN 2% CALCIUM CHLORIDE. ALL PLUGS WILL BE DESPRACED WITH MUD. VERBAL APPROVAL FROM STEVE MASON (BLM) @ 11:06AM ON 9-18-91.

Form 3160-5 (June 1884) ₅₁ 30 **1991** PORM APPROVED **UNITED STATES** rem No. 1004-0135 (June 1990) DEPARTMENT OF THE INTERIOR E March 31, 1993 **BUREAU OF LAND MANAGEMENT** sien and Serial No. NOG 8702-1116 6. If Indian, Allottus or Tribe No. SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. Use "APPLICATION FOR PERMIT-" for such proposals Navajo Tribal 7. If Unit or CA, Agreement Designation SUBMIT IN TRIPLICATE 1. Type of Well OII Well ☐ Ges 8. Well Name and No. cto | 0 1993 Other North West Cajon 6E-1 2. Name of Operator 9. API Well No. Chuska Energy Company
3. Address and Telephone No. 43-037-31627 10. Field and Pool, or Exploratory Area 3315 Rloomfield Hwy. Farmington. NM 87401 (505)326-5525
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Wildcat 11. County or Parish, State 1740' FNL, 470' FWL San Juan Co, Utah Section 6 - T40S - R25E CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA 12. TYPE OF ACTION TYPE OF SUBMISSION Change of Plans Notice of Intent

Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Recompletion

Plugging Back

Casing Repair Altering Casing

P&A PROGRAM

Subsequent Report

Final Abandonment Notice

Approved as to plugging of the well bare. Michility under bond is retained until Series restarsion is completed. **New Construction**

Water Shut-Off

Dispose Water
(Note: Report results of multiple com-

Non-Routine Fracturing

Conversion to Injection

PLUG #	FROM. MD	TO, MD	<u>#SX</u>	ZONE COVERED
1	6336	5917	250	AKAH, DC, ISMAY
ż	5020	4920	60	HERMOSA
3	3095	2995	60	DeChelly
3 1	2015	1915	60	CHINLE
5	575	475	50	CASING SHOE
2	50	7 0	25	SURFACE
O	30	<i>i</i>	505	

ALL PLUGS WILL BE CLASS 'G' NEAT CEMENT. PLUGS 5 AND 6 WILL CONTAIN 2% CALCIUM CHLORIDE. ALL PLUGS WILL BE DISPLACED WITH MUD. VERBAL APPROVAL FROM STEVE MASON (BLM) @ 11:06AM ON 9-18-91.

· · · · · · · · · · · · · · · · · · ·	- 	APPROVED
4. I hereby cartify that the foregoing is true and correct Signed	Tide Production Engineer	Date 9/70/9/
(This space for Federal or State office use)	Title	OCT 0 9 1991
Approved by Conditions of approved, if any:		AND MONTHS
tie 18 U.S.C. Section 1001, makes it a crime for any person knowing r representations as to any matter within its jurisdiction.	ity and within the make to any department or agency of the United State	JAMES LANGE AND STREET

EOFUTAH

	PARTMENT OF NATURA VISION OF OIL, GAS	AL RESOURC		6. Lease Designation and Serial Number NOG 8702-1116 7. Indian Allottee or Tribe Name
SUNDRY I De not use this form for proposals to	NOTICES AND RE			Navajo Tribal 8. Unit or Communitization Agreement
Bee	APPLICATION FOR PERMIT			N/A
1. Type of Well Oil Gae Well Well	Other (speci	w _{P&A}		9. Well Name and Number North West Cajon 6E 1
Name of OperatorChuska Energy Company	7			10. API Well Number
3. Address of Operator	· · · · · · · · · · · · · · · · · · ·	·	4. Telephone Number	43-037-31627
3315 Bloomfield Hwy,	Farmington, N.M.	87401	505-326-5525	Wildcat
Footage : 1740 CQQ, Sec. T., R., M. : Sec.	FNL, 923' FWL (FNL, 470' FWL (6, T40S, R25E	Surface)	County State	: San Juan : UTAH
12 CHECK APPHO	خنطيف بالهنبارين بباري اختصاب المنطقة المتطالة المتحددة	IDICATE N		
	CE OF INTENT it in Duplicate)		SUBSE (Submit	QUENT REPORT Original Form Only)
Abandonment Casing Repair Change of Plans Conversion to Injection Fracture Treat Multiple Completion	New Construction Pull or Alter Case Recompletion Shoot or Acidize Vent or Flare Water Shut-Off	sing	Abandonment * Casing Repair Change of Plans Conversion to Injection Fracture Treat Other	New Construction Pull or Alter Casing Shoot or Acidize Vent or Flare Water Shut-Off
Other P & A			Bata of Mark Completion	
Approximate Date Work Will S	Start		Date of Work Completion _	
Approximate Date Work Will	, art	•	Report results of Multiple Comple on WELL COMPLETION OR REC Must be accompanied by a cere	
DESCRIBE PROPOSED OR COM locations and measured and true P&A PROGRAM:	PLETED OPERATIONS (Clea vertical depths for all markers	riy state ali perti and zones perti	nent details, and give pertinent dates nent to this work.)	. If well is directionally drilled, give subsurface
PLUG # FROM, MD	TO, MD	#SX	ZONE COVER	ED
1 6336'	5917 '	250	Akah, DC,	Ismay
2 5020'	4920	60	Hermosa	
3 3095	2995	60	DeChelly	
4 2015' 5 575'	191.5 '	60	Chinle	
6 50'	475 ' 0 '	50 25	Casing Shoe	2
50	J	505	Surface	
All plugs will be Cla All plugs will be dis 9-18-91.	ess 'G' Neat cements placed with mud.	nt. Plug Verbal	s 5 and 6 will contain approval from Steve N	in 2% Calcium Chloride. Mason (BLM) @ 11:06 A.M.,

SEP 1 0 1993

Title OPERATIONS MANAGER Date 5-27-93

(June 1990) DEPARTME	rill or to deepen o	MENT ON WELI or reentry to	a different reservoir.	FORM APPROVED Bulget Bures No. 1004-0135 Expire: March 31, 1993 5. Lease Designation and Serial No. NOG 8702-1116 6. If Indian, Allones or Tribe Name Navajo Tribal
SUBMIT	IN TRIPLICAT	E		7. If Unit or CA, Agreement Designation
1. Type of Well Oil Gas Well Well Other 2. Name of Operator Chuska Energy Company	Ange of the control of		SEP 1 0 1993	8. Well Name and No. North West Cajon 6E-1 9. AFI Well No.
3. Address and Telephone No.				43-037-31627
3315 Bloomfield Hwy. Farmingt 4. Location of Well (Footage, Sec., T., R., M., or Survey I	on, NM 87401	(505)326	-5525	10. Field and Pool, or Exploratory Area Wildcat
1740° FNL, 4 70° FWL Section 6 - T40S - R25E		CONF	FIDENTIAL	11. County or Parish, State San Juan Co, Utah
12. CHECK APPROPRIATE BOX	(s) TO INDICAT	E NATURE	OF NOTICE, REPOR	IT, OR OTHER DATA
TYPE OF SUBMISSION			TYPE OF ACTION	
Notice of Intent Subsequent Report Final Abandonment Notice		Abandonment Recompletion Plugging Back Casing Repair Altering Casing Other	RA	Change of Plans New Construction Non-Routine Fracturing Water Shut-Off Conversion to Injection Dispose Water (Nose: Report musks of multiple completion on Well Completion or Recompletion Report and Log form.)
Describe Proposed or Completed Operations (Clearly state is give subsurface locations and measured and true vertical P&A PROGRAM			ent to this work.)*	SEE ATTACHED FOR NOITIONS OF APPROVAL
PLUG # FROM. MD 1 6336 2 5020 3 3095 4 2015 5 575 6 50 ALL PLUGS WILL BE				AND & WILL
CONTAIN 2% CALCIUM CHI VERBAL APPROVAL FROM				
14. I hereby certify that the foregoing is true and correct		oduction	Engineer	9-10-91
Signed	Title Pt	Oduction	Bugineer	
Approved by	Title			0CT 0 9 1991

لأشاء

UNITED STATES DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT FARMINGTON RESOURCE AREA 1235 LA PLATA HIGHWAY FARMINGTON, NEW MEXICO 87401

Attachment to Notice of

Re: Permanent Abandonment

Intention to Abandon

ALL CALLED

THE PARTY OF THE P

Well: North West Cajun 6E

CONDITIONS OF APPROVAL

- 1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal Leases."
- 2. Mark Kally with the Farmington Office is to be notified at least 24 hours before the plugging operations commence (505) 326-6201.
- Blowout prevention equipment is required.
- 4. The following modifications to your plugging program are to be made (when applicable):

Office Hours: 7:45 a.m. to 4:30 p.m.

STATE OF UTAH DEPARTMEN NATURAL RESOURCE DIVISION OF OIL, GAS AND MININ 1. Specific affairs Ek West Operator Chuska Energy Company 3. Address of Operator	Nog 8702-1116 7. Indea Allosso or Triba Name Navajo Tribal 8. Unit or Communication And Name N/A 9. Well Name and Number North West Cajon 6E 1 10. API Well Number 43-037-31627
3315 Bloomfield Hwy, Farmington, N.M. 87401 5. Location of Well 1290' FNL, 923' FWL (Subsur 1740' FNL, 470' FWL (surface)	
QQ. Sec. T., R., M.: Section 6, T40S, R25E 12 CHECKAPPROPRIATE BOXES TO INDICATE N. NOTICE OF INTENT (Submit in Duplicate)	State : UTAH
Abandonment New Construction Casing Repair Pull or Alter Casing Change of Plans Recompletion Shoot or Acidize Fracture Treat Vent or Flare Water Shut-Off Other Spud/Surface Casing Approximate Date Work Will Start	Abandonment Pull or Alter Casing Casing Repair Pull or Alter Casing Change of Plans Shoot or Acidize Conversion to Injection Vent or Flare Fracture Treat Water Shut-Off Other Date of Work Completion Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form. Must be accompanied by a cement verification report.
13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertin locations and measured and true vertical depths for all markers and zones pertin Notification of spud with Aztec Well ServiceRig Chambers to Mark Kelley. Drilled 12 1/4" hole 8 5/8", 24#/ft., K-55, STC casing with guide st Cemented with 375 sx Class'G' cement with 2% Cato surface. Completed cementing 8-28-91.	ent details, and give pertinent dates. If well is directionally drilled, give subsurface tent to this work.) g #222 @ 2000 hrs., 8-27-91, by Larry A. to 526. Rigged up and ran 12 joints noe and float collar. Landed @ 526.
SEP 1 0 1993 14. I hereby certify-that the foregoing layfue and/correct	

OPERATIONS MANAGER Date 5-27-93

P : TYED Form 3160-5 (June 1990) 0 U + 3 0 1991

or representations as to any matter within its jurisdiction.

UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

FORM	(APPR	OVED
Budget Bur	eau No.	1004-0135
Expires:	March	31, 1993

		NOG 8702-1116
SUNDRY NOTICES Do not use this form for preposals to dr	6. If Indian, Allottee or Tribe Name Navajo Tribal	
USE APPLICATION FO	R PERMIT—" for such proposals	7. If Unit or CA, Agreement Designation
SUBMIT 1. Type of Well	IN TRIPLICATE	XXXXXX
Type of Well Gas Other Other		8. Well Name and No.
2. Name of Operator		North West Cajon 6E-1 9. API Well No.
CHUSKA ENERGY COMPANY 3. Address and Telephone No.		43-037-31627
315 Bloomfield Highway, Farmington, New Mexico	87401 1(505)326–5525	10. Field and Pool, or Exploratory Area
4. Location of Well (Footage, Sec., T., R., M., or Survey D	escription)	Wildcat
1740' FNL, 470' FWL Section 6—T40S—R25E		11. County or Parish, State San Juan County, Utah
12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION	TYPE OF ACTION	
Notice of Intent	Abandoenters	Change of Plans New Construction
Subsequent Report	Casing Repair	Non-Routine Fracturing Water Shut-Off
Final Abandonment Notice	Altering Casing	Conversion to Injection
	Other SPUD/SURFACE (SG NOTICE	Dispose Water (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)
13. Describe Proposed or Completed Operations (Clearly state a give subsurface-locations and measured and true vertically state and true vertically subsurface described by the subsurface of the subsurface described by the subs	Il pertinent details, and give pertinent dates, including estimated date of starting cal depths for all markers and zones pertinent to this work.)*	any proposed work. If well is directionally drilled
Alaksanta at annul and a Maril Carries Die #000 G	2000 hrs. 9, 27, 01 hv.l. aray A. Chambors to Mark Kelley. Drilleg	1 121/4" hole to 526'
Rigged up and ran 12 joints 8 5/8, 24 #/ft, K-55, STC : CaCl2 and 1/4 1b/sk cello flake. Circulated cement to	2000 hrs, 8-27-91 by Larry A. Chambers to Mark Kelley. Drilled sasing w/guide shoe and float collar. Landed @ 526'. Cemented surface. Completed cementing 8-28-91.	w/375 sx Class 'G' cement w/ 2 /.
	1.0.104	
SEP	101993	
		•
-		
14. I hereby certify that the foregoing is true and correct	Title Instruction Frey.	ACCEPTED & ACCEPTED &
Signed / Muy H. Umeller	Title Title	Date
(This space for Féderal or State office use) Approved by	Title	007 07 1991 Date
Conditions of approval, if any:		FARMINUTUR NESOUNDE AREA

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements

Sr-

August 29, 1991

Bureau of Land Managment 1235 La Plata Highway Farmington, New Mexico 87401

Attn: Mr. Ron Fellows

RE: Sundry Notice: Northwest Cajon 6E Well

Spud/Surface Casing Sundry Notice

Dear Mr. Fellows,

Attached for your examination and approval are the original and six copies of the subject Sundry Notice.

Please advise if you require additional information concerning this submission.

Sincerely,

Larry G. Sessions

Operations Manager

Form 3160-5 (June 1990)

UNITAL STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES Do not use this form for proposals to dr Use "APPLICATION FO	6. If Indian, Allottes or Tribe Name Navajo Tribel		
SUBMIT	7. If Unit or CA, Agreement Designation		
i. Type of Well Oil Gas Well Well Other		8. Well Name and No.	
2. Name of Operator	<i>()</i>	North West Cajon 6E-1 9. API Well No.	
CHUSKA ENERGY COMPANY 3. Address and Telephone No.		43-037-31627	
315 Bloomfield Highway, Farmington, New Mexico	87401 1(505)326-5525	10. Field and Pool, or Exploratory Area	
4. Location of Well (Footage, Sec., T., R., M., or Survey D	escription)	Wildcat	
1740' FNL, 470' FWL Section 6-T40S-R25E		11. County or Purish, State San Juan County, Utah	
12. CHECK APPROPRIATE BOX	(s) TO INDICATE NATURE OF NOTICE, REPO	RT, OR OTHER DATA	
TYPE OF SUBMISSION	TYPE OF ACTION		
Notice of Intent Subsequent Report	Abandourieri Recentificiti	Change of Plans New Construction Non-Routine Fracturing Water Shut-Off	
Final Abandonment Notice	Altering Casing Other SPUD/SURFACE (SG NOTICE) all pertinent details, and give pertinent dates, including estimated date of starting	(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)	
Rigged up and ran 12 joints 8 5/8, 24 #/ft, K-55, STC CaCl2 and 1/4 1b/sk cello flake. Circulated cement to	92000 hrs, 8-27-91 by Larry A. Chambers to Mark Kelley. Driller sasing w/guide shoe and float collar. Landed @ 526'. Cemented surface. Completed cementing 8-28-91.	1 121/4" hole to 526'. I w/375 sx Class 'G' cement w/ 2 '/.	
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(This space for Federal or State office use)	· .		
Approved by	Tide	Date:	
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STATE OF LITAH

1. Type of West to Entire Transporting 677 Forces on Date 1990.	IG	6. Lease Designation and Serial Number NOC 8702-1116 7. Indian Allottee or Tribe Name Navajo Tribal 8. Unit or Communitization Agreement 9. Well Name and Number
2. Name of Operator Chuska Energy Company		NorthWest Cajon 6-E 10. API Well Number 43-037-31627
3315 Bloomfield Higway, Farmington, N.M. 87401 5. Location of Well 1290' FNL, 923' FWL (Subsurface Footage :1740' FNL, 470' FWL, (Surface)		11. Field and Pool, or Wildcat Wildcat
OQ. Sec. T., R., M.: Sec. 6, T40S, R25E 12 CHECK APPROPRIATE BOXES TO INDIGATE NA NOTICE OF INTENT (Submit in Duplicate)	State VICHE OF NOTIGE RE- SUBS	
Abandonment New Construction Casing Repair Pull or Alter Casing Recompletion Conversion to Injection Shoot or Acidize Fracture Treat Vent or Flare Multiple Completion Water Shut-Off Other	Abandonment * Casing Repair Change of Plans Conversion to Injection Fracture Treat Other	New Construction Pull or Alter Casing Shoot or Acidize
Approximate Date Work Will Start	Date of Work Completion Report results of Multiple Comp on WELL COMPLETION OR RE * Must be accompanied by a c	ement verification report.

Following re-evaluation of seismic data, it has been decided to deepen the well to 6,418' MD/6,276', TVD. Refer to attached revised 10-Point Drilling Plan.

14. I hereby certify that the foregoing is true and correct Name & Signature

BARRY A. WIELAND

Title OPERATIONS MANAGER Date 5-27-93

(State Use Only)

^{13.} DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

and the same	
form	3160-5
	1990)
	1 t 🕶

FORM APPROVED bedget Buress de. 1884-8135 Fraires: farch 11, 1991

OFM 3160-5 June 1990) BUREAU OF L SUNDRY NOTICES A Do not use this form for proposals to drill Use "APPLICATION FOR	NOG 8702-1116 i. if indian, Allottee or Tribe State Navajo Tribal 7. if Sait or GA, Agreement Besignation		
SUBMIT IN	TRIPLICATE	-	
1. Type of Toll Color Color	nington, NM 87401 505-326-5525 Surrey Bescripties) S, R25E	8. Fell Size and Se. North West Cajon 6-E 9. Aft Fell Se. 43-037-31627 19. Field and Feel, or Exploratory Area Wildcat 11. Casary or Farish, State San Juan, Utah	
APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REF	PORT, OR OTHER DATA	
	TYPE OF ACTIO	Change of Plans	
TYPE OF SUBMISSION Subsequent Report Final Abandonment Rotice	Abendonment Recompletion Plugging Back Casing Repair Altering Gasing		
	Cther	(Note: Report results of multiple completion on Meil Completion or Recompletion Report and Log form.)	
13. Describe Proposed or Completed Operations (Clearly state artified, give subsurface locations and measured and trul	e all pertinent details, and give pertinent dates, including estimated dat e vertical depths for all markers and zones pertinent to this work.)*	e of starting any proposed work, if well is directionally	

Following re-evaluation of seismic data, it has been decided to deepen the well to 6,418 MD/6,276' TVD. Refer to attached revised 10-Point Drilling Plan.

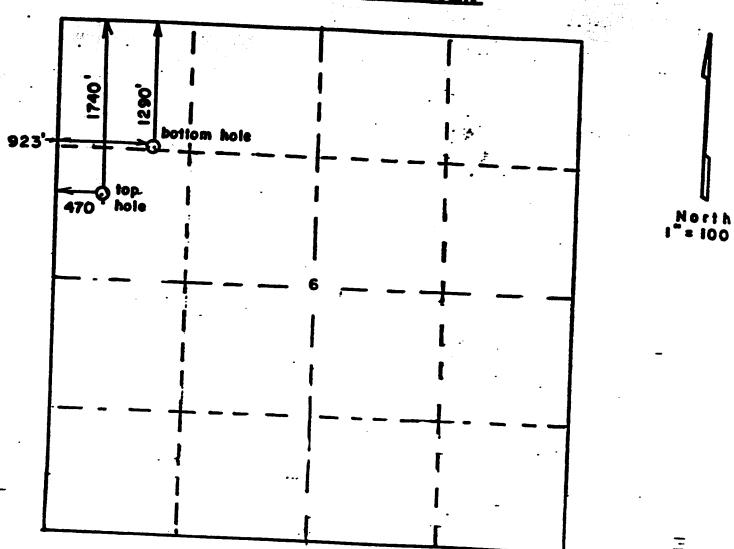
10.885

14. 1 horoby forty that the forgoing of tru	Title Operations Engineer	11te 5 Jul 91
Signed Christopher s. Sill (This space for Federal octave office us		Date
Approved by Genditions of approval, if any	Title	
***************************************		the States as false

Title 18 U.S.C. Section 1981, makes it a crime for any person knewingly and milifully to make to any department or agency of the United States any false.

Tictitions or francelent statements or representations as to new matter mithin its includication.

(November 1983) Soracely 9-331C)	ι	STATE	S	(Other instru reverse	rtions on	Budget Bureau Expires Augu	
1	DEPARTMENT	THE !	NTER	OR	, (S. LEASE DESIGNATION	-
	BUREAU OF	LAND MANA	EMEN	T ·		NOG 8702-11	
APPLICATION	FOR PERMIT	O DRIII	DFF	PEN, OR PLUG	RACK	4. IF INDIAN, ALLETTE	
le. TYPE OF BORE		-		EIG VII I EVA	PAVIL.	Navajo Trib	
DR 1	LL 🛛	DEEPEN		PLUG BAC	ж□	1. VEIT ACREEMENT CAM	
PELL	GAS TELL OTHER			SINGLE NOLTI	PLE	* 718H AR 15165 A156	
2. MARE OF OPERATOR	VELL CTHER			3805 7085	لنا	1. FARN OR LEASE BANE Northwest C	e ion
Chuska Energ	y Company					1. TELL 10.	2,01
3. ADDRESS OF OPERATOR						6-E	
3315 Bloomfi	eld Highway, Fa	rmington, N	M 874	101		10. FIELD ARR POOL, OF	VILDEAT
At Surface	174	10' FNL, 47	a cay st O'FW	ato requirements.}* M		Wildcat	
		,	•	_		11. SEG., T., R., H., AND SURVEY OR AREA	OR BLE.
At proposed prod. zon	" 129	90' FNL, 92	3' FW	L		S6 T40S R2	: -
	DIRECTION FROM MEAREST		E ‡	*		12. COURTY OF PARISH	IS. STATE
8 1/2 miles	North of Aneth,	Utah				San Juan	Utah
15. DISTANCE FROM PROPOSE PROPERTY OR LEASE LIN	ED LOCATION TO MEARESTS		16. BG	. OF AGRES IN LEASE		OF ACRES ASSIGNED	
(Also to morrest drig	. sait lias, if ear) 72	7'		9,997			
TO MEAREST WELL, DRIL	LING. COMPLETED.	0 140'	•	OPOSED DEFTE	I .	RY OR CABLE YOOLS	
OR APPLIED FOR, OR TH	ils LEASE, FT. Shor DF, RT, GR, otc.)	2,143'	0,28	1' MD/6,151' TVD KB	Rot	tary	8111 eriera
	076' KB This action	le cubioni se se	.	5		8-12-91	BILL 31881*
23.	precedural	tenien bhizmau	t.to 43	CSR-2166.2	DRH I IN:	CPERATIONS AUTHO	PUFD ASB
PLTE AC MALE	and apposi	BRORDSED CAS	NG AND	CEMENTANG PROGRAM	r eneral	QUANTITY, OF GENERAL	MATTACHER
12 1/4"				SEITING PERIN	11 (7 - 5 - 5		
7 7/8"	8 5/8" 5 1/2"	24 lb 15.5 lb		500'	371 sx	G' + 2% CaCl2	
	3 1/2	13.5 16		6,281' MD 6948'	836 SX	'G', 65:35 Poz + 6% (ie I
Refer to attach	ed 10-Point Dri	lling Plan		⊃ I 0 1993	Nort A	on 6/10/91)O C-4N
SIGNED CAPELORIAL (This space for Federal	UN!	TITL	E Op	back, give data on present a subserface locations as mations Engine	4 sossero 6	ve zone and proposed accept the second secon	1991
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WELL LOCATION DESCRIPTION:

CHUSKA ENERGY CO., Northwest Cajon 6-E 1740'FML & 470'FWL (top hole) 1290'FNL & 923'FWL (bottom hole) Section 6, T.40 S., R.25 E., SLM San Juan County, UT 5063' ground elevation

State plane coordinates from seismic control: X = 2,662,774 Y = 253,511 (top hole)

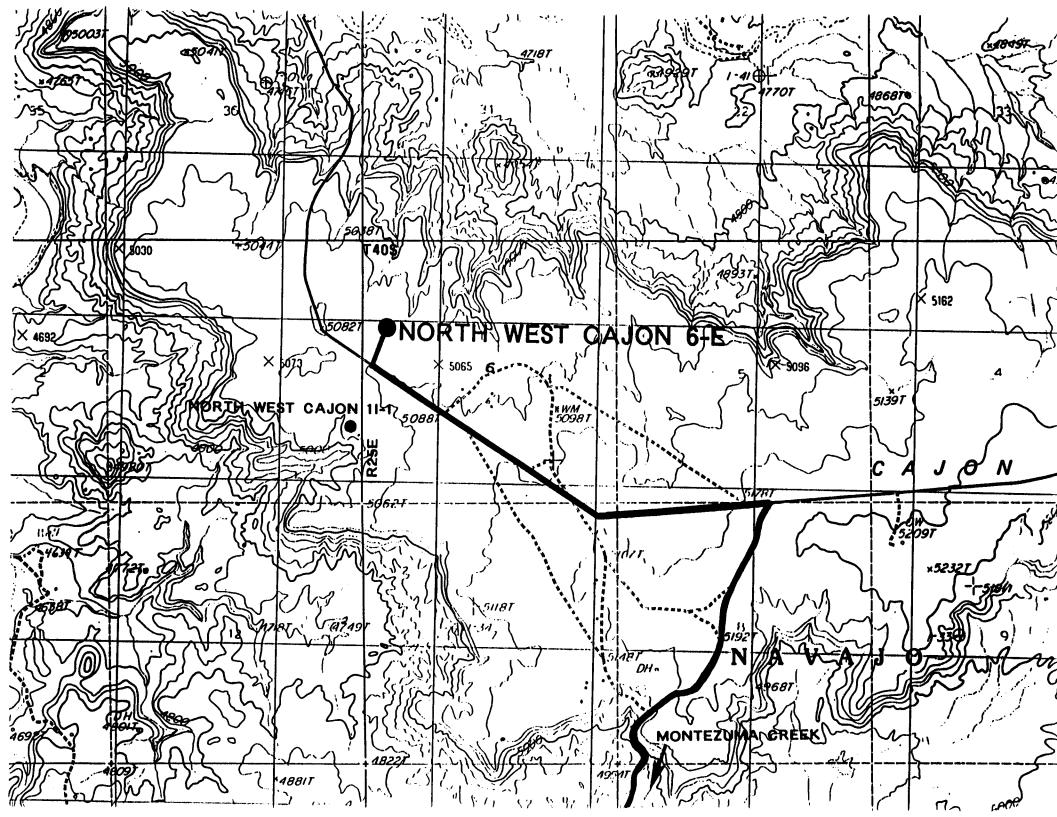
X = 2,663,209Y = 253,982 (bottom hole)

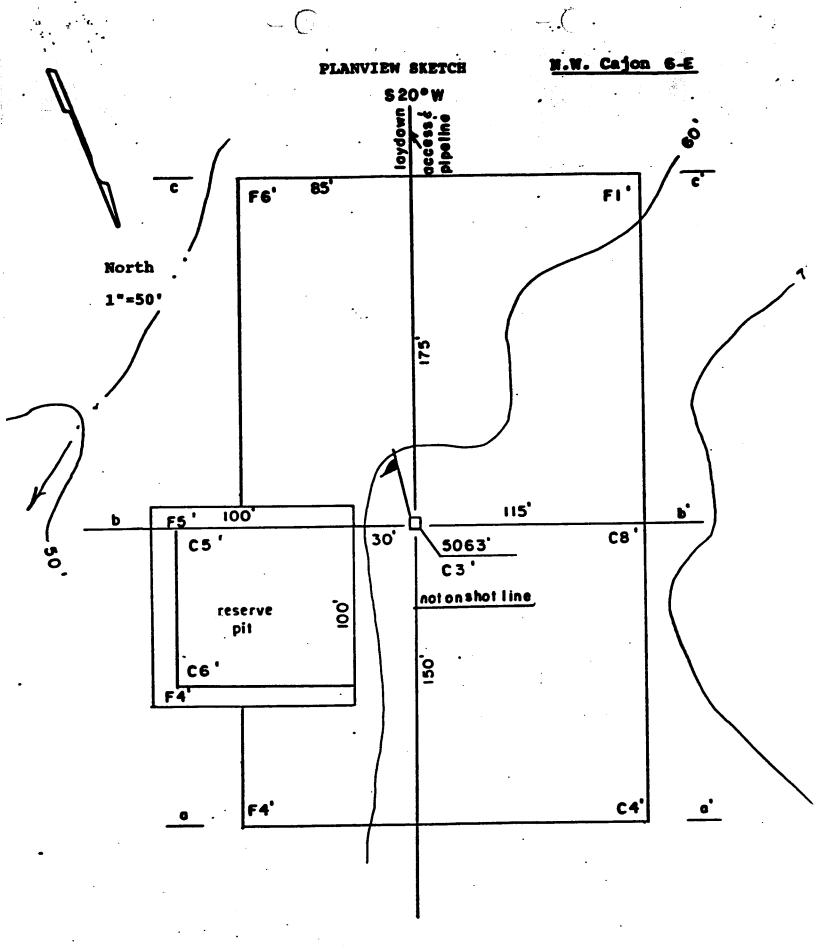
The above is true and correct to my knowledge and belief.

2 April 1991

Gerald G. Huddleston, LS

213 East Montezuma Avenue · Cortez, Colorado 81321 · 303-565-3330



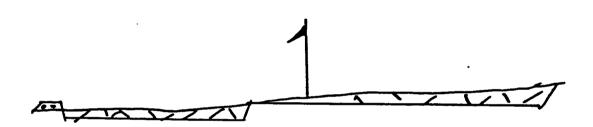


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1"=50' vert. & horz.

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b b'

CHUSKA ENERGY COMPANY

10 POINT DRILLING PLAN

Northwest Cajon Well No. 6-E Section 6, Township 40S, Range 25E 1740' FNL, 470' FWL (Surface) 1290' FNL, 923' FWL (Bottomhole) San Juan County, Utah

1. SURFACE FORMATION

Geological name of surface formation: Dakota/Burro Canyon

2. ELEVATION

Surface elevation is 5,063' GR/5,076' KB.

3. ESTIMATED FORMATION TOPS

<u>Depth</u> TVD	<u>Depth</u> MD	Formation	<u>Sub Sea</u> Elevation

Surface	Surface	Burro Canyon	+ 5,076'
176'	176'	Morrison	+ 4,900'
1,260'	1,260'	Navajo	+ 3,816'
1,948'	1,948'	Chinle	+ 3,128'
3,050'	3,050'	DeChelly	+ 2,026'
3,152'	3,152'	Organ Rock	+ 1,924'
3,849'	3,849'	Cedar Mesa	+ 1,227'
4,945'	4,963'	Hermosa 🗀	+ 131'
5,880'	5,984' -17	Upper Ismay 5967	- 804'
5,988'	6,102'	Lower Ismay	- 912' Secondary
6,046'	6,166'	Desert Creek	- 970' Primary
6,086'	6,210'	Akah	- 1,010'
6,151'	6,281'	Total Depth	- 1,075'

4. PROPOSED CASING/CEMENTING PROGRAM

	<u>Depth</u>	<u>Size</u>	Weight	<u>Grade</u>	Coupling
Surface	500'		24 lb	K-55	STC
Production:	6,281' MD		15.5 lb	K-55	STC

Surface Cementing:

371 sx (427 $\rm ft^3$) Class 'G' cement with 2% CaCl₂ and 1/4 lb/sk Celloflake. Weight = 15.8 ppg, yield = 1.15 $\rm ft^3/sk$. Slurry volume calculated at 100% excess over annular volume.

Production Cementing:

First Stage

T.D. to 3,500' (stage collar @ ± 3,500'). Lead with 242 sx Class 'G' cement, 65:35 Pozmix, with 6% gel and 1/4 lb/sk Celloflake. Weight = 12.7 ppg, yield = 1.85 ft³/sk. Tail with 159 sx Class 'G' cement with 2% CaCl₂. Weight = 15.8 ppg, yield = 1.15 ft³/sk. Total of 629 ft³. Bring Class 'G' slurry to 500' above top of Upper Ismay. Cement volumes calculated at 30% excess in open hole. WOC 4 hours between stages.

Second Stage

3,500' to surface. <u>Lead</u> with 355 sx Class 'G' cement, 65:35 Pozmix with 6% gel and 1/4 lb/sk Celloflake. Weight = 12.7 ppg, yield = 1.85 ft/sk. <u>Tail</u> with 100 sx Class 'G' cement with 2% CaCl₂. Weight = 15.8 ppg, yield = 1.15 ft³/sk. Total of 772 ft³. Cement volumes calculated at 30% excess in open hole.

Note:

Exact slurry volumes for the production string will be adjusted according to the caliper log which will be run prior to cementing. Special adjustments may be necessary if significant amounts of salt are drilled.

5. BLOWOUT PREVENTER (See attached schematics)

As abnormal pressure is not anticipated, a 2,000 psi BOP system would be sufficient for the drilling of this well. However, due to availability constraints, a 3,000 psi system will be used, as per the attached Exhibits "A" and "B". This will be a 10" \times 900 Series double ram preventer, equipped with a set of pipe and blind rams.

An accumulator system, with a pressure capacity sufficient to operate the rams three complete cycles without rig power, will be required as part of the rig equipment.

6. PROPOSED MUD PROGRAM

Surface to 3,000'

Fresh water, gel, lime and native solids. Weight 8.3 - 8.7 ppg. Gel/lime sweeps as necessary for hole cleaning.

3.000' to T.D.

Low solids, non-dispersed polymer system. Weight 8.6 - 9.5 ppg. Gel/lime sweeps as hole conditions dictate for hole cleaning. Fluid loss to be maintained at 15 - 20 cc. Fluid loss to be further reduced to 15 cc or less prior to coring, logging or DSTs.

7. AUXILIARY EQUIPMENT

- A. A kelly $\cos x^{\mu}$ will be installed during drilling operations, with handle available on the rig floor.
- B. 'Floor' (stabbing) valves will be available, on the rig floor at all times, with necessary subs to fit all of the drilling assemblies.
- C. Mud will be the circulating fluid. No abnormal formation pressures are expected.

8. WELL EVALUATION

Open hole electric logging program will consist of a minimum program of DLL-MSFL-SP-GR-Cal, FDC-CNL-GR-Lithodensity from T.D. to 4,500'.

Coring and/or drill stem testing will be as per the wellsite geologist's recommendations, based on shows. A mud logging unit will be utilized during drilling operations from at least 500' above the Upper Ismay.

9. ABNORMAL PRESSURES/GAS

Abnormal pressures are not anticipated. Monitoring of gas and hydrocarbon shows will be by wellsite mud logging unit. H₂S gas is not anticipated, however regular checks will be made while drilling the well.

10. TIMING

The drilling and evaluation of this well is estimated to be 25 days. Anticipated spud date is 8-12-91.

EXHIBIT "A" BLOWOUT PREVENTER ROTATING HEAD -FILLUP LINE MUD TO PIT PIPE RAMS BLIND RAMS EXHIBIT 3 " DRILLING SPOOL KILL TO CHECK LINE CHOKE VALVE MANIFOL CASING HEAD

DETAILED DRILLING PROGRAM

DATE: 20 May, 1991

WELL NAME: Northwest Cajon WELL NO.: 6-E

LOCATION: Section 6, Township 40S, Range 25E

1740' FNL, 470' FWL (Surface) 1290' FNL, 923' FWL (Bottomhole)

San Juan County, Utah

ELEVATION: 5,063' GR/5,076' KB

TOTAL DEPTH: 6,281' MD/6,151' TVD KB

PROJECTED HORIZON: Primary target is Desert Creek at 6,166' MD.

Secondary target is Lower Ismay at 6,102' MD.

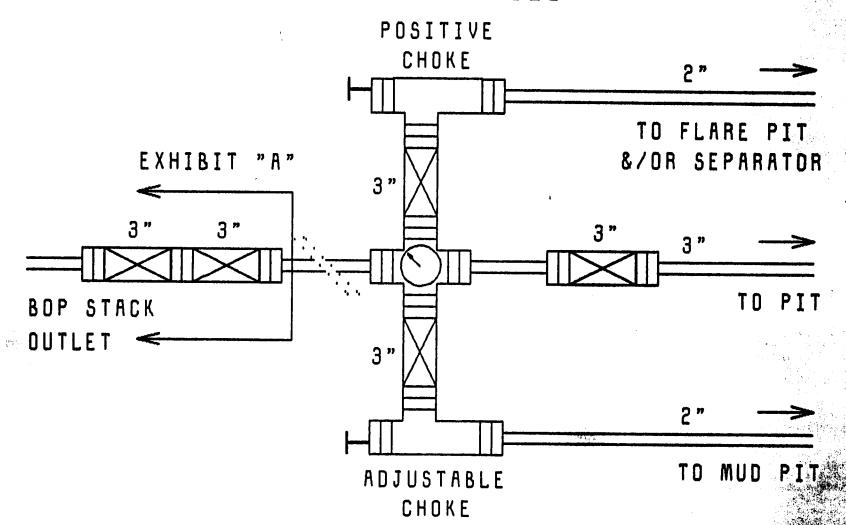
DRILLING, CASING AND CEMENTING PROGRAM

1. Move in and rig up rotary tools. Notify BLM of time of spud and intent to run surface casing.

- 2. Drill mouse hole and rat hole. Mix mud prior to spudding well.
- 3. Drill 12 1/4" hole to \pm 500'. Use fresh water gel/lime spud mud for drilling surface hole. Well bore inclination is not to exceed 1° at 500'. Deviation surveys will be run at least at 250' and at casing point.
- 4. Run 8 5/8", 24 lb/ft, K-55, STC casing to T.D. Cement with 371 sx (427 ft³) of Class 'G' cement with 2% CaCl₂ and 1/4 lb/sk Celloflake (sufficient slurry volume to circulate cement to surface).
- 5. W.O.C. a minimum of 4 hours prior to nippling up BOP stack and related equipment. See BOP schematics for details.
- 6. Ensure that plug has been down at least 8 hours prior to commencing pressure testing procedures. Pressure test BOP to 2,000 psig for 30 minutes. Pressure test manifold and all related equipment to 2,000 psig. Pressure test casing to 1,500 psig for 30 min.
- 7. Drill out surface casing with 7 7/8" bit. Drill 7 7/8" hole to 4,000'. Deviation surveys are to be taken every 500' or on a bit trip, whichever occurs first. Maximum allowable deviation will be 5°, with the maximum allowable rate of change to be 1°/100'. Take directional survey at 4,000'.
- 8. Rig up directional tools and start building angle, with rate of build 2° per 100 ft. Directional surveys are to be taken every 100', or as directed, while building angle.

- 9. Build angle to 24.25° by 5,212' MD/5,177' TVD. Continue drilling 7 7/8" hole to T.D. Directional surveys are to be taken at least every 250'.
- 10. Run multishot survey at total depth.
- 11. Run open hole logs and evaluate. Coring and/or drill stem testing will be as per wellsite geologist's recommendation.
- 12. If the well is determined to be productive, run 5 1/2", 15.5 lb/ft, K-55, STC casing to T.D. Set stage cementing collar at ± 3,500°. In addition to placing centralizers over potential production zones, they will also be run to cover the aquifer sands of the Navajo and DeChelly formations, as per BLM stipulations. Cement production casing in two stages as per cementing program in 10-point Drilling Plan.
- 13. Nipple down BOPE. Set 5 1/2" casing slips and cut off casing. Install well head. Release drilling rig and move rig off location.
- 14. If well is non-productive it will be plugged and abandoned as per State, BLM and Navajo Tribal stipulations.

EXHIBIT "B" CHOKE MANIFOLD



DETAILED DRILLING PROGRAM

DATE: 20 May, 1991

WELL NAME: Northwest Cajon WELL NO.: 6-E

LOCATION: Section 6, Township 40S, Range 25E

1740' FNL, 470' FWL (Surface) 1290' FNL, 923' FWL (Bottomhole)

San Juan County, Utah

ELEVATION: 5,063' GR/5,076' KB

TOTAL DEPTH: 6,281' MD/6,151' TVD KB

PROJECTED HORIZON: Primary target is Desert Creek at 6,166' MD.

Secondary target is Lower Ismay at 6,102' MD.

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DRILLING, CASING AND CEMENTING PROGRAM

1. Move in and rig up rotary tools. Notify BLM of time of spud and intent to run surface casing.

- 2. Drill mouse hole and rat hole. Mix mud prior to spudding well.
- 3. Drill 12 1/4" hole to \pm 500'. Use fresh water gel/lime spud mud for drilling surface hole. Well bore inclination is not to exceed 1° at 500'. Deviation surveys will be run at least at 250' and at casing point.
- 4. Run 8 5/8", 24 lb/ft, K-55, STC casing to T.D. Cement with 371 sx (427 ft³) of Class 'G' cement with 2% CaCl₂ and 1/4 lb/sk Celloflake (sufficient slurry volume to circulate cement to surface).
- 5. W.O.C. a minimum of 4 hours prior to nippling up BOP stack and related equipment. See BOP schematics for details.
- 6. Ensure that plug has been down at least 8 hours prior to commencing pressure testing procedures. Pressure test BOP to 2,000 psig for 30 minutes. Pressure test manifold and all related equipment to 2,000 psig. Pressure test casing to 1,500 psig for 30 min.
- 7. Drill out surface casing with 7 7/8" bit. Drill 7 7/8" hole to 4,000'. Deviation surveys are to be taken every 500' or on a bit trip, whichever occurs first. Maximum allowable deviation will be 5°, with the maximum allowable rate of change to be 1°/100'. Take directional survey at 4,000'.
- 8. Rig up directional tools and start building angle, with rate of build 2° per 100 ft. Directional surveys are to be taken every 100', or as directed, while building angle.

- Build angle to 24.25 by 5,212 MD/5,177 TVD. Continue drilling 7 7/8" hole to T.D. Directional surveys are to be 9. taken at least every 250'.
- Run multishot survey at total depth.
- 11. Run open hole logs and evaluate. Coring and/or drill stem testing will be as per wellsite geologist's recommendation.
- If the well is determined to be productive, run 5 1/2", 15.5 1b/ft, K-55, STC casing to T.D. Set stage cementing collar at + 3,500'. In addition to placing centralizers over potential 12. production zones, they will also be run to cover the aquifer sands of the Navajo and DeChelly formations, as per BLM stipulations. Cement production casing in two stages as per cementing program in 10-point Drilling Plan.
- Nipple down BOPE. Set 5 1/2" casing slips and cut off casing. Install well head. Release drilling rig and move rig off 13. location.
- If well is non-productive it will be plugged and abandoned as per State, BLM and Navajo Tribal stipulations. 14.

7. METHODS OF HAL ING WASTE MATERIAL

Trash will be contained on location in an enclosed bin. It will be hauled to an approved disposal site or burned on location if a burning permit is granted. The reserve pit will be lined as required, with an approved 7 mil liner, for containing drilling fluids. The pit will also be fenced. All drilling fluids, cuttings and chemical waste will be stored in the reserve pit. Liquid hydrocarbons will be stored in temporary storage tanks and hauled from location to approved sales facilities. The reserve pit will be emptied, back filled and restored to natural terrain status upon completion of drilling operations.

8. ANCILLARY FACILITIES

Chemical portable toilet facilities will be provided on location during drilling and completion operations. No camps or air strips are planned for this well.

9. WELL SITE LAYOUT

Attached is a surveyor's staking plat, cut and fill diagram and a schematic of the proposed rig layout.

10. PLANS FOR RESTORATION OF THE SURFACE

The location is laid out on a roughly north/south trend and will only require up to 6' of cut in the reserve pit (up to 4' of cut in the north eastern corner of the location pad) and up to 6' of fill in the south western corner of the location pad. Top soil removed from the pad will be stored at the well site. A reserve pit will be built on terrain containing sparse native vegetation. After drilling operations are complete, drilling fluid in the reserve pit will be allowed to evaporate. All remaining fluid in the pit will be disposed of into an approved disposal site. The reserve pit will remain fenced during the evaporation and disposal process. The pit will then be covered and the topsoil will be returned to the disturbed area. The terrain will be returned as near to its original condition as possible. Following operations, rehabilitation seeding will be in accordance with APD/BLM/BIA stipulations. There are no residents in the immediate area of the site.

11. OPERATORS REPRESENTATIVE

CHUSKA ENERGY COMPANY
3315 BLOOMFIELD HIGHWAY
FARMINGTON, NEW MEXICO 87401
LARRY G. SESSIONS

Northwest Cajon Well No. 6-E Section 6, Township 40S, Range 25E 1740' FNL, 470' FWL (Surface) 1290' FNL, 923' FWL (Bottomhole) San Juan County, Utah

SURFACE USE PLAN

1. EXISTING ROADS

Shown on the attached topographic map are the existing roads in the immediate area. Outlined is the route to be followed on the Hovenweep road. Existing roads will be maintained, as necessary, while operations are in progress.

2. PLANNED ACCESS ROAD

The access road will be as shown on the attached topographic map. The road will be flat bladed, constructed 14' in width and will be maintained as necessary to prevent excessive damage to the existing terrain. The road will be upgraded if commercial production is established. It is anticipated that less than 800' of new road will need to be constructed to the location pad.

3. LOCATION OF EXISTING WELLS & TANK BATTERIES

The location of the North West Cajon 11-1 well is indicated on the attached topographic map.

4. LOCATION OF EXISTING AND PROPOSED FACILITIES

No production facilities are presently in place. Should the well prove to be productive, facilities (tank battery etc) will be sited on the drilling location pad.

5. LOCATION & TYPE OF WATER SUPPLY

Water will be acquired from the San Juan River or McElmo Creek and will be hauled using Chuska Energy Company water trucks, under State of Utah Division of Water Rights Permit Numbers 09-1724, (T64796) or 09-1723 (T64795).

6. SOURCE OF CONSTRUCTION MATERIALS

The need for additional construction materials is not anticipated. In the event that additional materials are required, they will be acquired either from private sources or with the approval of the Navajo Nation.

orthwest Cajon Well No. (
Section 6, Township 40S, Range 25E
1740' FNL, 470' FWL (Suctace)
1290' FNL, 923' FWL (Bottomhole)
San Juan County, Utah

GENERAL COMPLETION PROCEDURE

If the well is determined to be productive, move in completion rig. Perforate, acidize, and test each productive porosity zone. Completion work will commence after Sundry Notice approval is received. Detailed procedures will follow.

PLUGGING AND ABANDONMENT

If the well is determined not to be productive, the well bore will be plugged as per BLM, State and Navajo Tribal requirements.

Northwest Cajon Well No. 6-E Section 6, Township 40S, Range 25E 1740' FNL, 470' FWL (Surface) 1290' FNL, 923' FWL (Bottomhole) San Juan County, Utah

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7. METHODS OF HANDLING WASTE MATERIAL

Trash will be contained on location in an enclosed bin. It will be hauled to an approved disposal site or burned on location if a burning permit is granted. The reserve pit will be lined as required, with an approved 7 mil liner, for containing drilling fluids. The pit will also be fenced. All drilling fluids, cuttings and chemical waste will be stored in the reserve pit. Liquid hydrocarbons will be stored in temporary storage tanks and hauled from location to approved sales facilities. The reserve pit will be emptied, back filled and restored to natural terrain status upon completion of drilling operations.

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OPERATORS REPRESENTATIVE

CHUSKA ENERGY COMPANY
3315 BLOOMFIELD HIGHWAY
FARMINGTON, NEW MEXICO 87401
LARRY G. SESSIONS

11.

12. CERTIFICATION

I hereby certify that either I, or persons under my direct supervision have inspected the proposed drill site and access route: that I am familiar with the conditions which presently exist: that the statements made in this plan are, to the best of my knowledge, true and correct and that the work planned will be performed by Chuska Energy, or its sub-contractors, in conformity with the terms and conditions under which it is approved.

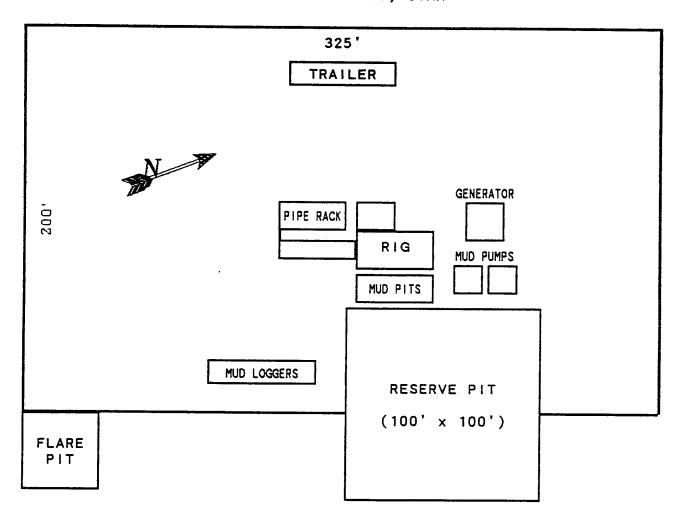
LARRY G. SESSIONS Operations Manager

NORTH WEST CAJON-6-E

1740' FNL, 470' FWL

SECTION 6, TOWNSHIP 40S, RANGE 25E

SAN JUAN COUNTY, UTAH





United States Department of the Interior

BUREAU OF LAND MANAGEMENT FARMINGTON RESOURCE AREA 1235 LAPLATA HIGHWAY FARMINGTON, NEW MEXICO 87401



3162.3-1 (019)

Above Data Required on Well Sign

GENERAL REQUIREMENTS FOR OIL AND GAS OPERATIONS ON FEDERAL AND INDIAN LEASES

In addition to those requirements set forth in the laws, regulations and Onshore Orders, these requirements apply generally to all oil and gas operations on Federal and Indian leases. They apply specifically to the above-described well. Special requirements that apply and are effective for this well, if any, are check-marked in Section VII of these General Requirements. The failure of the operator to comply with these requirements and the filing of required reports will result in strict enforcement of 43 CFR 3163.1 or 3163.2.

I. GENERAL

- A. Full compliance with all applicable laws, regulations, and Onshore Orders, with the approved Permit to Drill, and with the approved Surface Use and Operations Plan is required. Lessees and/or operators are fully accountable for the actions of their contractors and subcontractors.
- B. Each well shall have a well sign in legible condition from spud date to final abandonment. The sign should show the operator's name, lease serial number, or unit name, well number, location of the well, and whether lease is Tribal or allotted, (see 43 CFR 3162.6(b)).
- C. A complete copy of the approved Application for Permit to Drill, along with any conditions of approval, shall be available to authorized personnel at the drill site whenever active drilling operations are under way.
- D. For Wildcat wells only, a drilling operations progress report is to be submitted weekly from spud date until the well is completed and the Well Completion Report (Form 3160-4) is filed. The report should be on $8\ 1/2\ x\ 11$ inch paper, and each page should identify the well by; operator's name, well number, location and lease number.
- E. As soon as practical, notice is required of all blowouts, fires and accidents involving life-threatening injuries or loss of life. (See NTL-3A).

- 2. Well Completion Report (Form 3160-4) will be submitted within 30 days after well has been completed.
- 3. Two copies of all electrical and open-hole logs run (two copies of the mud log are required if no open hole electric logs are run).
 - 4. A cement evaluation log if cement is not circulated to surface.

III. DRILLER'S LOG

- A. The following shall be entered in the daily driller's log:
- 1. Blowout preventer pressure tests, including test pressures and results.
 - 2. Blowout preventer tests for proper functioning.
 - 3. Blowout prevention drills conducted.
 - 4. Casing run, including size, grade, weight, and depth set.
- 5. How pipe was cemented, including amount of cement, type, whether cement circulated to surface, location of cementing tools, etc..
 - 6. Waiting on cement time for each casing string.
- 7. Casing pressure tests after cementing, including test pressure and results.
- 8. Estimated amounts of oil and gas recovered and/or produced during drillstem tests.

IV. GAS FLARING

- A. Gas produced from this well may not be vented or flared beyond an initial, authorized test period of _____ * ___ days or 50 MMcf following its (completion) (recompletion), whichever first occurs, without the prior, written approval of the authorized officer. Should gas be vented or flared without approval beyond the test period authorized above, you may be directed to shut-in the well until the gas can be captured or approval to continue venting or flaring as uneconomic is granted, and you shall be required to compensate the lessor for that portion of the gas vented or flared without approval which is determined to have been avoidably lost.
- * 30 days, unless a longer test period specifically is approved by the authorized officer. The 30-day period begins when the casing is first perforated for cased holes, and when Total Depth (TD) is reached for open hole completion.

BLM ENVIRONMENTAL STIPULATIONS

Operator Chuska Energy			Well	Name	6-E Northwest Cajon				
-		1740'FNL/470'FWL 1290'FNL/923'FWL	Sec.	6	т.	40 S.	_ R.	25 E.	· · · · ·
Lease	Number _	NOG-8702-1116	Fiel	d Insp	ect.	ion Date	3/28	3/91	

The following stipulations will apply to this well unless a particular Surface Managing Agency (SMA) or private surface owner has supplied to BLM and the operator a contradictory environmental stipulation. The failure of the operator to comply with these requirements may result in the assessment of liquidated damages or penalties pursuant to 43 CFR 3163.3 or 3163.4. A copy of these stipulations shall be present on the location during construction, drilling and reclamation activity.

An agreement between the operator and fee land owner will take precedence over BLM surface stipulations unless 1) BLM determines that the operator's actions will affect adjacent Federal or Indian surface (43 CFR Part 3160), or 2) the operator does not maintain well area and lease premises in a workmanlike manner with due regard for safety, conservation and appearance (43 CFR Part 3162.7-4), or 3) no such agreement exists (43 CFR Part 3160), or 4) in the event of well abandonment, minimal Federal restoration requirements will be required (43 CFR Part 3162.7-2).

I. LOCATION AND ACCESS ROAD

- A. Well area and lease premises will be maintained in a workmanlike manner with due regard to safety, conservation and appearance. All liquid waste, completion fluids and drilling products associated with oil and gas operations will be contained and then buried in place, or removed and deposited in an approved disposal site. Trash cages will be used for all solid waste and removed from location to an approved solid waste disposal site. No solid waste shall be put in reserve pit before, during or after drilling operations.
- B. Piñon-juniper trees and brush will be uprooted from road ROW and well pad locations and distributed along ROWs and stockpiled beside well pads for fuelwood salvage. Care will be taken to keep trees as undamaged as practically possible. Large vegetation such as sagebrush, juniper and piñon will not be incorporated into pit walls. All uprooted vegetation will be scattered on the reclaimed portion of location so it does not detract from the natural appearance of the area.
- C. Surface disturbance and vehicular traffic will be limited to the approved location and approved access road.
- D. Mud pits and blow pits will be constructed so as not to leak, break or allow discharge of liquids or produced solids. At least half of the capacity of reserve pit must be in cut. The top of the outside wall of reserve pit should be smoothed-off with a minimum of one blade width. The pit should have adequate capacity to maintain 2 feet of free board. Pits are not to be located in natural drainages. Pit walls are to be "walked down" by a crawlertype tractor following construction and prior to usage. Any plastic material used to line pits must be removed to below-ground level before pits are covered. The final grade of reserve pit (after reclamation) shall allow for drainage away from pit area.

- E. All unguarded pits (reserve/production/blow pits) containing liquids will be fenced with woven wire. Drilling pits will be fenced on three sides and once the rig leaves location, the fourth side will be fenced. All fencing must be a legal fence in accordance with N.M. State Law. Liquids in pits will be allowed to evaporate, or be properly disposed of, before pits are filled and recontoured. (This office will be notified 24 hours prior to fluid hauling). Under no circumstances will pits be cut and drained. Aeration of pit fluids must be confined within pit area.
- F. No gravel or other related minerals from new or existing pits on Federal land will be used in construction of roads, well sites, etc., without prior approval from the Surface Managing Agency.
- G. Prior to crossing, using or paralleling any improvement on public land, operator shall contact the owner of the improvement to obtain mitigating measures to prevent damage to improvements.
- H. All cut fences are to be tied to braces prior to cutting. The opening will be protected during construction to prevent the escape of livestock. A temporary closure will be installed on all cut fences the same day the fence is cut. A permanent cattleguard will be installed and maintained in any cut fence unless otherwise stipulated in writing. A twelve-foot gate will be installed adjacent to all new cattleguards.
- I. Berms or firewalls will be constructed around all storage facilities sufficient in size to contain the storage capacity of tanks, or the combined capacity of tanks if a rupture could drain more than one tank.
- J. All roads on public land must be maintained in good passable condition.
- K. A proposed use of pesticide, herbicide or other possible hazardous chemical on BLM land shall be cleared for use prior to application.

CULTURAL RESOURCES (ARCHAEOLOGY)

- A. EMERGENCY DISCOVERY IN THE ABSENCE OF MONITORING: This stipulation applies in emergency discovery situations where monitoring for cultural resources was not being performed because the presence of cultural resources could not have been anticipated. If, in its operations, operator discovers any historic or prehistoric ruin, monument, or site, or any object of antiquity subject to the Antiquities Act of 1979, and 43 CFR Part 3, then work will be suspended and discovery promptly reported to BLM Area Manager. BLM will then specify what action is to be taken. BLM will evaluate the discovery, evaluate its significance, and consult with the State Historic Preservation Officer. Minor recordation, stabilization, or data recovery may be performed by BLM. However, more significant mitigation shall be carried out by a qualified, permitted archeologist. BLM's responsibility to ensure that such mitigation is carried out in accordance with 36 CFR Part 800.11. Given the timeframes involved in BLM's budgeting process, operators are strongly encouraged to fund such required mitigation. Further damage to significant cultural resources and operations in its vicinity will not be allowed until any required mitigation is successfully completed.
- B. DISCOVERY OF CULTURAL RESOURCES DURING MONITORING: This stipulation applies to situations where archeological monitoring was taking place because local geologic conditions favored the presence of subsurface archeological sites in the project area. If monitoring confirms the

presence of subsurface sites, all work will cease in the site area. The monitor will immediately report this find to BLM Area Manager. BLM will specify what further steps must be taken to assess the damage to the site and to mitigate any adverse effects to it. Monitoring in these circumstances is considered to be a form of inventory and the operator will be responsible for obtaining at his/her expense a qualified permitted archeologist to complete a damage assessment report and to carry out any mitigation required by the BLM.

C. DAMAGE TO PREVIOUSLY IDENTIFIED SITE: This stipulation applies to situations where operations have damaged a previously identified archeological site that was visible on the surface. If, in its operations, operator damages, or is found to have damaged, any historic or prehistoric ruin/monument/or site/or any object of antiquity subject to the Antiquities Act of 1906, the Archeological Resource Protection Act of 1979, and 32 CFR Part 3, the grantee will prepare and implement a data recovery plan at his/her expense. The grantee will obtain at his/her expense, a qualified permitted archeologist to carry out the specific instruction of BLM.

RESEEDING AND ABANDONMENT

- A. All surface areas disturbed during drilling activities and not in use for production activities, will be reseeded the first July-September period after reserve pit has been filled in and/or location abandoned. For producing locations, this should occur in the first 12 months after drilling is completed.
- B. After top soil has been placed on location, compacted areas of well pad will be plowed or ripped to a depth of 12" before reseeding. The surface should be left rough to help retain rain fall. All seeding is recommended to be done between July 1 and September 15. Seeding will be done with a disc-type drill with two boxes for various seed sizes. The drill rows will be eight to ten inches apart. The seed will be planted between one-half inch deep and three quarter inch deep. The seeder will be followed with a drag, packer or roller to insure uniform coverage of seed, and adequate compaction. Drilling of the seed will be done on the contour where possible. Where slopes are too steep for contour drilling a "cyclone" hand-seeder or similar broadcast seeder will be used, after preparation of an adequate seed-bed. Seed will then be covered to a depth described above by whatever means is practical. Mulching, excelsior netting and/or netting may be required on steep slopes.
- C. After seeding, remaining rocks and vegetation (trees, brush, etc.) should be placed on the seeded areas using back hoes or rubber tired frontend loaders.
- D. If, in the opinion of the SMA, the seeding is unsuccessful, the lessee/operator may be required to make subsequent seedings.
- E. If, upon abandonment of wells, the retention of access road is not considered necessary for the management and multiple use of the natural resources, it will be ripped a minimum of 12" in depth. After ripping, water bars will be installed. All ripped surfaces are to be protected from vehicular travel by construction of a deadend ditch and earthen barricade at the entrance to these ripped areas. (Reseeding of affected areas may be required).

Bureau of Indian Affairs Surface Management Stipulations To Be Included in APD

ll# Northwest te of Inspection			STIPULATIONS CHEC
e of Inspection	3-28-91		APPLY
ovided by R 7	cornett		
All above groups	d structures and anni-		
following non-gi	d structures and equip	oment will be painte	ed with the
reasoning haring.	rate Coloi.		
Brawn	Fed. Standard	595a - 3031	۵
Green	Fed. Standard	595a - 3412	
Gray	Fed. Standard	595a - 3635	
X Sand	Fed. Standard	595a - 3027	
Mobil beige 12	?-f-38		•
Compacted areas	will be plowed or rip	eped to a depth of 1	2 to 15 inches
De. J. E. TESEECING	. Seed will be drill	ed to a denth of S	to 75 ions
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Seec mix will be	e applied at 150% of t	he recommended rate	. The following
seed mix will be	e used.		- 1110 1011041119
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Sand Dropseed Alkali Sacaton . Indian Ricegrass Galleta Needle-A-Thread Squirrel tail Side Cats Grama Four-wing Saltoes Shacscale Winter-rat (Purity x Germina	sn.		

- 4. NA Upon abandonment, the well pad will be fenced with a standard five-strand barb wire fence, or equivalent and will have no gates. The fence will be taintained for two years to allow for seeding establishment and will then be removed.

5. Access roads not needed for through traffic will be barricaded and reseeded in accordance with #2. Water bars will be constructed to the following specifications.

★ Slope	Slope Distance	
Less than 1%	,	300 feet
1% - 5%	į	200 feet
5% - 15%		100 feet
Greater than 15%		50 feet

- 6. An earthen berm (24 inches/feet high) will be constructed around the perimeter of the well pad, except on the high/cut side of the well pad.
- 7. The reserve pit will be lined to prevent seepage from occurring.
- 8. NA The reserve pit will be constructed long and narrow (x feet) so that the pit can be accommodated and any potential hazards reduced or eliminated.
- 9. **NA** Immediately following drilling, the fluids of the reserve pit will be pumped and disposed of per BLM instructions. A sundry notice for this action is required by BLM.
- 10. NA Diversion ditch (es) will be constructed on the ____ side of the well pad above/below (circle one) the cut slope diverting any runoff to the ____.
- 11. <u>NA</u>The wash (es) will be diverted around the ____ side of the well pad.
- 12. NA Culvert(s) of sufficient size will be placed on all drainage crossings of the access road determined necessary during the on-site inspection.
- 13. No production flowlines nor gas sales lines will be constructed until their right-of-ways/easements are inspected and approved by the surface management agency.
- 14. Any flowline (s) (surface/subsurface) will be constructed paralleling new and existing road right-of-ways, except
- 15. NAThe top ____inches of soil of any subsurface flowline constructed will be rolled/scraped to one side of the bladed line and will be disturbed as little as possible during the actual construction. Immediately following installation, the roll of topsoil salvaged will be redistributed over the bladed line and will be reseased in accordance with item# 2. In addition to this, all areas disturbed (including the replaced topsoil) will be imprinted with a land imprinter or sneep's foot type roller to create a pattern of small depressions to enhance vegetative regrowth. All drainages crossed by these line (s) will be restored, as near as possible, to their original form. Water bars will be constructed in accordance with item# 5.
- 16. NA Fence (s) crossed by the access road will be braced and tied off before cutting of the wires to prevent slackening of the fencelines. Both a gate and cattlequard which must be BIA approved will be installed.

- 17. Storage tank (s) installed on the location will be surrounded by a dike of sufficient capacity to contain li times the storage capacity of the tank (s)
- 18. The stipulations set forth in the archeological clearance letter dated 4723 Mi will be strictly adhered to. Clearance No. NNAD-91-072
- 19. Upon abandonment, all material brought in to plate the surface of the well pad and/or the access road will be cleaned up and disposed of prior to reseeding.
- 20. NA The construction work conducted at this location will need to be inspected before the drill rig is moved on the location.

ALL CHANGES/DEVIATIONS MADE FROM THE APPROVED APD MUST BE CLEARED AND APPROVED BY THE SURFACE MANAGEMENT AGENCY. THE SURFACE MANAGEMENT AGENCY CAN BE CONTACTED AT (505) 368-4728.

OTHER:

STATE OF DIVISION		GAS	AND	MININ	G
ENTITY	ACTION	FOI	RM -	FORM	6

NOTE: Use COMMENT section to explain why each Action Code was selected.

(3/89)

OPERATOR Chuska Energy Company

ADDRESS 3315 Bloomfield Highway

Farmington, N.M. 87401

OPERATOR	ACCT.	NO.	N 92%

Phone No. (_

1077011	CURRENT	Neu	API NUMBER	WELL NA	MC	WELL LOCATION					COUD	EFFECTIVE	
ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NA	unc	QQ	SC	TP	RG	COUNTY	_ SPUD Date	DATE	
A	99998-	7	43-037-31627	Northwest Cajon 6	E Well	NWNW	6	40S	25E	San Juan	8-27-91		
WELL 1 C		7.								_			
	Spud			Drilled to 526.	Ran and cemen	ted su	rface	casing	at 52	26'.			
		Well PAI	'd 9-18-91. Lie										
												T	
WELL 2 C	OMMENTS:	<u> </u>				1	<u>!</u>	<u>!</u>	<u> </u>	<u> </u>			
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WELL 5 C	OMMENTS:							-					
ACTION	ODES (See i	nstructions	on back of form) for new well (si	ngle well only)		<u> </u>	VIE II	WE					
В	- Add new w	ell to exist	tina entity (arou	or unit well)	A Marie Carlo	が高る		N. ME		Signature			
D	- Re-assign	well from (one existina enti	ty to another existing ty to a new entity	entity		0 l a:	1993					
E - Other (explain in comments section)					SF	hin	1330		Title		Date		



September 30, 1991

TO:

File

FROM:

Frank Matthews

RE:

NW Cajon 6E, Sec. 6, T. 40S, R. 25E, San Juan County,

API No. 43-037-31627

Well was plugged and abandoned on 9/18/91 per Glenn Goodwin.

Handle as

CONFIDENTIAL

PAGE 4

DG

GAS

PETROLEUM INFORMATION DAILY ACTIVITY REPORT SECTION II - 10/09/91

COMPLETION SUMMARY MONTANA CONTINUED

PHILLIPS COUNTY

FREEPORT-MCMORAN INC 0170-2 RAY MCMULLEN API 25-071-22102

1-37N-30E NW SW

1400 FSL 605 FWL

LORING EAST; PERMIT # \$13262; 1970 PHILLIPS, (FR 04/15/91CA) OPER ADD: BOX 60004, NEW ORLEANS, LA, 70160 PHONE (504) 582-4184; EL: 2779 KB; LOCATION DATA: IRREG SEC; 45 MI N-NE MALTA, MT; AMMANN

BASE MAP MT-4.

IC 250717001191 CONTR: ELENBURG EXPL; SPUD: 08/04/91, CSG: 7 @ 159 W/65 SX, 4 1/2 @ 1997 W/225 SX; LOG TYPES: BHCS 0-2000, CNL 0-2000, GRL 0-2000, LDT 0-2000; LOG TOPS: BOWDOIN 1563, GREENHORN 1775, PHILLIPS 1794; 2000 TD, (TD REACHED: 08/ 16/91); PRODUCING INTERVAL(S) DATA: PERF (BOWDOIN) 1580-1657 W/2 PF, PERF (GREENHORN) 1775-1809 W/2 PF, (GREENHORN/PHILLIPS 1775-1809) SGFR (1580-1657) W/ 100041 LBS SAND, GEL WTR 12/20 SD SGFR W/ 40216 LBS SAND, GEL WTR 12/20 SD 2000 TD. COMP 8/21/91, IPF 74 MCFGPD. PROD ZONE -BOWDOIN 1580-1657, GREENHORN/PHILLIPS 1580-1809. COMMINGLED. NO CORES OR DSTS. HOLDING FOR DATA . . (LDIR 10/08/91)

FREEPORT-MCMORAN INC 3 LORING API 25-071-22096

2-37N-30E NW SE SE 1118 FSL 945 FEL IC 250717010291

BOWDOIN; PERMIT #S 13255; 1990 PHILLIPS. (FR 04/04/91CA) OPER ADD: DG BOX 60004, NEW ORLEANS, LA, 70160 PHONE (504) 582-4184; EL: 2814 KB; GAS LOCATION DATA: 41 MI N-NE MALTA, MT; AMMANN BASE MAP MT-4,

CONTR: ELENBURG EXPL. RIG #2;SPUD: 07/17/91, CSG: 7 @ 156 W/65 SX, 4 1/2 @ 2007 W/225 SX; LOG TYPES: BHC 0-2015, CNL 0-2015, GRL 0-2015, LDT 0-2015, SONL 0-2015; LOG TOPS: BOWDOIN 1584, GREENHORN 1807, PHILLIPS 1826; 2015 TD, (TD REACHED: 08/ 18/91); PRODUCING INTERVAL(S) DATA: PERF (BOWDOIN) 1623-1688 W/2 PF, PERF (GREENHORN) 1807-1837 W/2 PF, (GREENHORN/PHILLIPS 1807-1837) SGFR (1623-1688) W/ 88343 LBS SAND, GEL WTR 12/20 SD SGFR (1807-1837) W/ 40719 LBS SAND, GEL WTR 12/20 SD 2015 TD. COMP 8/19/91, IPF 54 MCFGPD. PROD ZONE - BOWDOIN 1623-1688, GREENHORN/PHILLIPS 1807-1837. COMMINGLED. NO CORES OR DSTS. HOLDING FOR DATA . . (LDIR 10/08/91)

NEBRASKA

HAYES COUNTY

GOLDEN EAGLE 1 VONNA MOODY API 26-085-21123

34-7N-35W CISE SW 660 FSL 1980 FWL WILDCAT; 5000 BASAL SD, (FR 09/24/91DN) OPER ADD: BOX 55, MCCOOK, NE. 69001 PHONE (308) 345-3839, EL: 3124 GR; LOCATION DATA: 13 MI W-NW LEFFLER FLD(BASAL) 8 MI NE WAUNETA, NE; AMMANN BASE MAP

WF D&A

WF

CONTR: GOLDEN EAGLE DRLG, RIG #3;SPUD: 09/25/91, 5000 TD, (TD REACHED: 10/ 02/91); 5000 TD, COMP 10/7/91, D&A, HOLDING FOR DATA . . (LDIR 10/08/91)



UTAH

SAN JUAN COUNTY

CHUSKA ENERGY 6-E NORTHWEST CAJON API 43-037-31627

6-40S-25E NW SW NW 1740 FNL 470 FWL IC 430377003191

WO UNNAMED; 6281, PROJ TVD: 6151, (FR 05/28/91DN) OPER ADD: 3315 BLOOMFIELD HWY, FARMINGTON, NM, 87401 PHONE (505) 326-5525; EL: D&A 5063 GR; LOCATION DATA: 1/2 MI N-NE OF FLD(DESERT CREEK)DISC 8 1/2 MI N ANETH, UT; TO BE DIRECTIONALLY DRILLED. PBHL: 1290 FNL 923 FWL SE NW NW 6-40S-25E; AMMANN BASE MAP UT-9,

CONTR: AZTEC WELL SRVCG, RIG #222; SPUD: 08/28/91, CSG: RAN SURF CSG; 6280 TD. (TD REACHED: 09/ 17/91); 6280 TD. COMP 9/18/91, D&A. HOLDING FOR DATA . . (LDIR 10/08/91)

WYOMING

CAMPBELL COUNTY

OSBORN HEIRS 5 STATE API 49-005-30247 16-50N-69W SW SW NE 1990 FNL 2185 FEL IC 490057012391

WILDCAT: 8350 MINNELUSA, (FR 08/26/91DN) OPER ADD: BOX 17968, SAN ANTONIO, TX, 78286 PHONE (512) 826-8784; EL: 4297 GR; LOCATION D&A DATA: 3/4 MI NE ROZET FLD(MUDDY/MINNELUSA) 6 1/2 MI N ROZET, WY: AMMANN BASE MAP WY-2, WELL ID CHANGES: ELEV CHGD FROM 4308 GR

CONTR: EXETER DRLG, RIG #34;SPUD: 09/21/91, 8350 TD, (TD REACHED: 10/ 02/91); 8350 TD(APPROX). COMP 10/3/91(EST), D&A. HOLDING FOR DATA . . (LDIR 10/08/91)



HARKEN SOUTHWEST CORPORATION

(formerly Chuska Energy Company)

June 30, 1994

Mr. Mike Hebertson State of Utah Division of Oil, Gas & Mining 3 Triad Center, Suite 350 Salt Lake City, UT 85180



Dear Mike:

Pursuant to your request enclosed are the Directional Surveys for the following wells:

Mule 31K 43-037-3/6/7

N. Cajon Mesa 5E#1 43-037-3/624

XN.W. Cajon Mesa 6E 43-037-3/627

D.C. Anticline 35K 43-037-3/726

Sec 19 7425 R24E

Should you need additional information please let me know.

omeri

Very truly yours,

HARKEN SOUTHWEST CORPORATION

Rachelle Montgomery

Production Administrator

RM/jkw

Enclosure

CHUSKA EHERGY COMPANY Horthwest Cajon Mo.6-E, Northwest Cajon Mó-E Sec.6-1605-R25E, SAN JUAN COUNTY, UTAK

SURVEY LISTING Page 1
Your ref : Northwest Cajon #6-6
Last revised : 12-Sep-91

		•					
Measured. Depth	inclin. Degrees	Azimuth Degrees	True Vert. Depth	RECTANG	ULARD	ogleg g/100Ft	Vert Sect
	0.00	0.00	1214.00	9_80 M	0.00 E	0.00	0.00
1214.00	0.00	346.00	2085.46	25.83 N	6.44 W	0.40	14.61
2086.00	3.50		2582.77	51.17 N	12.56 W	0.20	29.06
2584.00	2.50	347.00		70.14 N	12.61 ¥	0.24	42.97
3083.00	2.00	16.00	3081.40	81.28 N	8.92 ¥	0.08	
3442.00	1.75	21,00	3640.21	91.40 M		0.00	53.66
3534.00	2,75	20.00	3532.15	84.67 N	7.66 🖫	1.09	57.00
3566.00	4.50	22.90	3564.07	86.55 N	6.93 ¥	5,48	58.88
3596.00	4.50	11.00	3593. 98	88.80 N	6.26 ¥	2.87	40.98
3458.00	4,50	27.00	3655.79	93.35 N	4.69 ¥	2.02	65.40
-	4.50	41.00	3686.69	95.36 N	3.34 W	3. 53	67.78
3689.00	4.70			47 75 U	4 (8)	• ••	70 54
3721.00	5.50	47.00	3718.57	97.35 N	1.48 W	3.52	70.56
3783.00	7.25	52.00	3780.19	101.78 N	3.46 E	2.96	77,39
3845.00	9.00	51.00	3841.56	107.24 ×	10.71 E	2,83	84.05
3947.00	9.75	48.00	3942,20	118.04 N	23.33 €	0.88	102.55
4040.00	9.75	48.00	4033.86	128.58 ×	35.03 E	9.00	118.23
-040.00	,						
4474 88	10.00	47.00	4126.46	139.48 N	44.92 E	0.32	134.29
4134.00		47.00	4218.01	150.62 ×	58.87 E	9.27	150.60
4227.00	10.25	50.00	4311.39	162.22 N	72.00 E	0.98	168.02
4322.00	11.00		4399.73	173.37 N	85.06 E	0.21	185.07
4412.00		49.00		181.26 N	96.13 E	0.00	197.02
4475.00	11.00	49.00	4441.58	10116W W	/41.10 E	4.00	177,04
4594.00	12.00	49.00	4578.18	196.82 N	112.03 E	0.84	220.60
		48.00	4669.07	209.90 N	126.81 E	0,58	240.23
4687.00	1211	48.00	4759.77	223,63 N	142.06 E	0.54	260.67
4780-00		44.00		264.13 N	163.21 E	1.43	290.08
4906.00				255.76 N	174.06 E	0.89	305.98
4947.00	14.75	42.00	4741.10		_		
5029.00	14.75	47.00	5001.14	267,01 N	185.11 E	2.05	321.75
5092.00		42.00		278.74 N	196.61 E	2.39	338.16
	1111	45.00		284.65 N	202.22 E	3.01	346.31
5123.00		47.00		290.41 N	208.18 E	1.62	354.58
3155.00		43.00		295.99 N	213.75 E	3.88	362.46
5185.00	15.50	43.00	, , , , , , , ,				
5216.00	15.00	41.00	5181.63	302,04 N	219.21 E	2.34	370.61
5250.00		40.00	5214.51	308.62 N	224.83 E	1.65	379.26
5306.00		43.00		319.16 N	234.15 €	1.36	393.32
		47.00		324.75 N	239.75 E	3.54	401.23
5337.0		51.00		334.94 N	251.44 E	2.28	416.66
5399.0	14.00	31.00	ا ۱۰ بیمیری و				
5441.0	14.20	53.00	5418.84	344.24 N	263.34 E	0.85	431.56
5523.0	• • • • • • • •	55.00		353.27 N	275.78 E	0.93	446.43
5586.0		56.00		362.29 N	2 84.9 1 E	0.62	462.16

All data is in feet unless otherwise stated Coordinates are from slot #2 and TVDs are from wellhead. Vertical section is from wellhead on azimuth 42.72 degrees. Calculation uses the minimum curvature method.